gue of Salmon Streams and
ning Escapements of
Statistical Areas 22 & 23
(Nitinat & Barkley Sound)

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Enhancement Services Branch
Fisheries & Oceans
Vancouver, B.C. V6E 2P1

November 1979

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Fisheries & Aquatic Sciences
No. 167

Canadian Data Report of Fisheries and Aquatic Sciences

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Rapport statistique canadien des sciences halieutiques et aquatiques

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Les numéros 1 à 25 de cette série ont été publiés à titre de Records statistiques, Service des pêches et de la mer. Les numéros 26-160 ont été publiés à titre de Rapports statistiques du Service des pêches et de la mer, Ministère des Pêches et de l'Environnement. Le nom de la série a été modifié à partir du numéro 161.

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Fisheries and Oceans
Canadian Data Report of
Fisheries and Aquatic Sciences
No. 167

November 1979

CATALOGUE OF SALMON STREAMS AND SPAWNING ESCAPEMENTS OF STATISTICAL AREAS 22 AND 23(NITINAT AND BARKLEY SOUND)

by

R.F. Brown, M.M. Musgrave, D.G. Demontier, D.E. Marshall, M.J. Comfort

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ABSTRACT

Brown, R.F., M.M. Musgrave, D.G. Demontier, D.E. Marshall, and M.J. Comfort. 1979. Catalogue of salmon streams and spawning escapements of Statistical Areas 22 and 23(Nitinat and Barkley Sound). Canadian Data Report of Fisheries and Aquatic Sciences No. 167.

Catalogue containing each stream's location, spawning distribution, barriers and points of difficult ascent, escapement records and other general data pertaining to the stream. The catalogue also includes a topographical map of the stream's location and in some cases a sketch which further describes the surrounding area.

Keywords: British Columbia, Statistical Areas 22 and 23, salmon streams, spawning escapements.

RÉSUMÉ

Brown, R.F., M.M. Musgrave, D.G. Demontier, D.E. Marshall, and M.J. Comfort. 1979. Catalogue of salmon streams and spawning escapements of Statistical Areas 22 and 23(Nitinat and Barkley Sound). Canadian Data Report of Fisheries and Aquatic Sciences No. 167.

Catalogue présentant, pour chaque cours d'eau, l'emplacement, la distribution des frayères, les obstructions et les points où la remonte est difficile, les données sur les remontes et d'autres reseignements d'intérêt général. Le catalogue contient aussi une carte topographique de l'emplacement du cours d'eau et, dans certains cas, un croquis qui représente avec plus de détails la région environnante.

Mots clés: Colombie-Britannique, zones statistiques 22 et 23, cours d'eau à saumons, remonte des reproducteurs.

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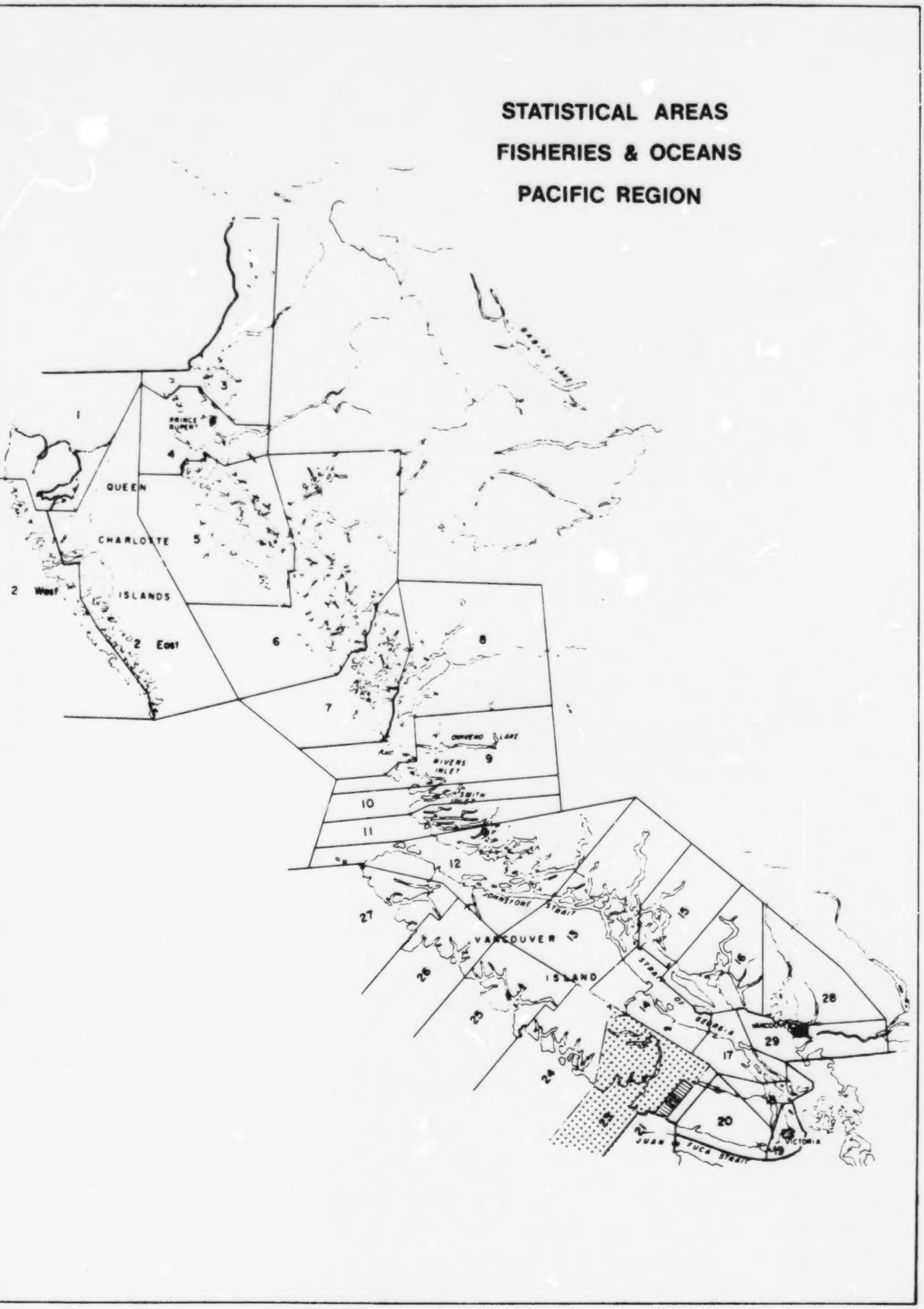
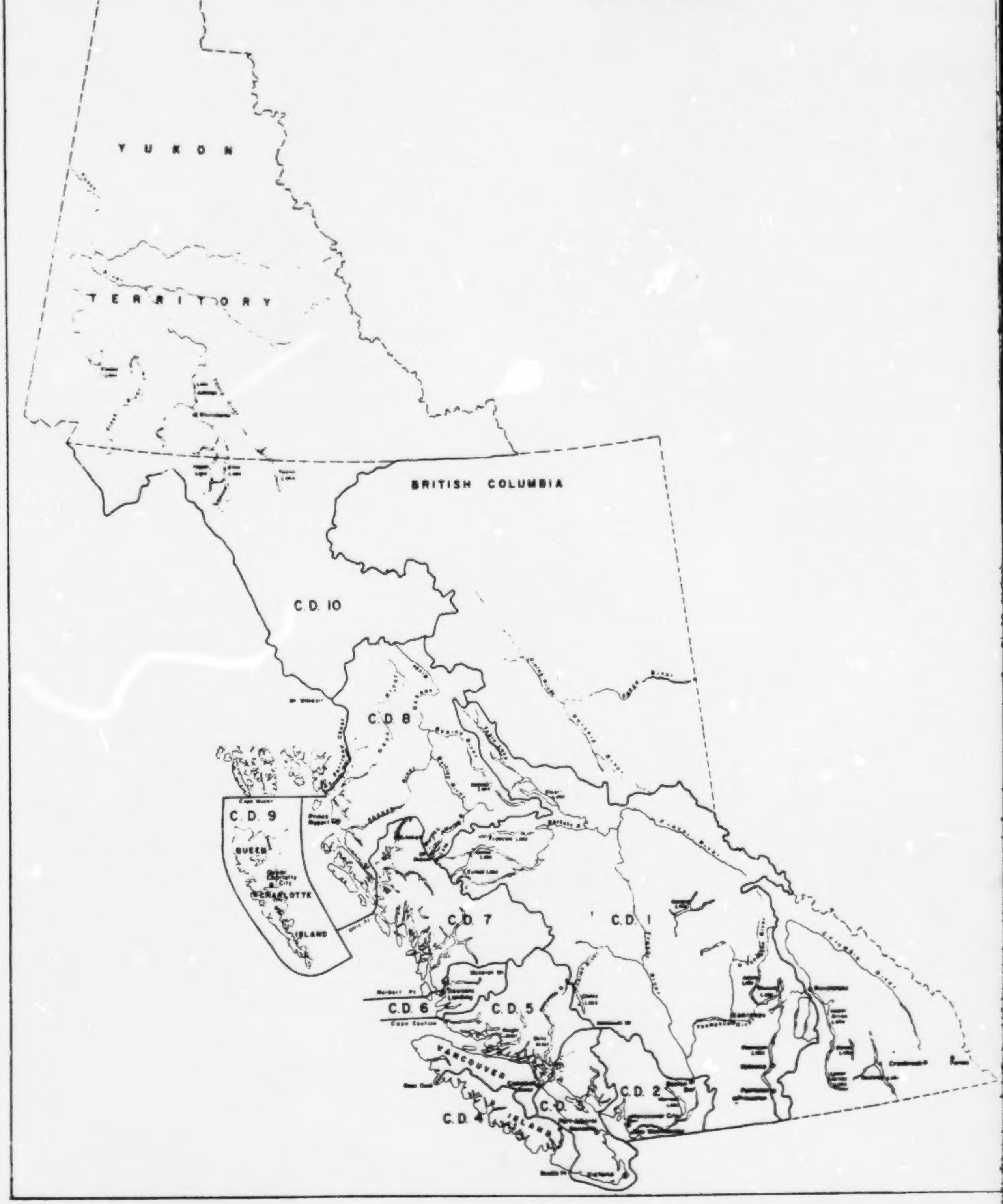
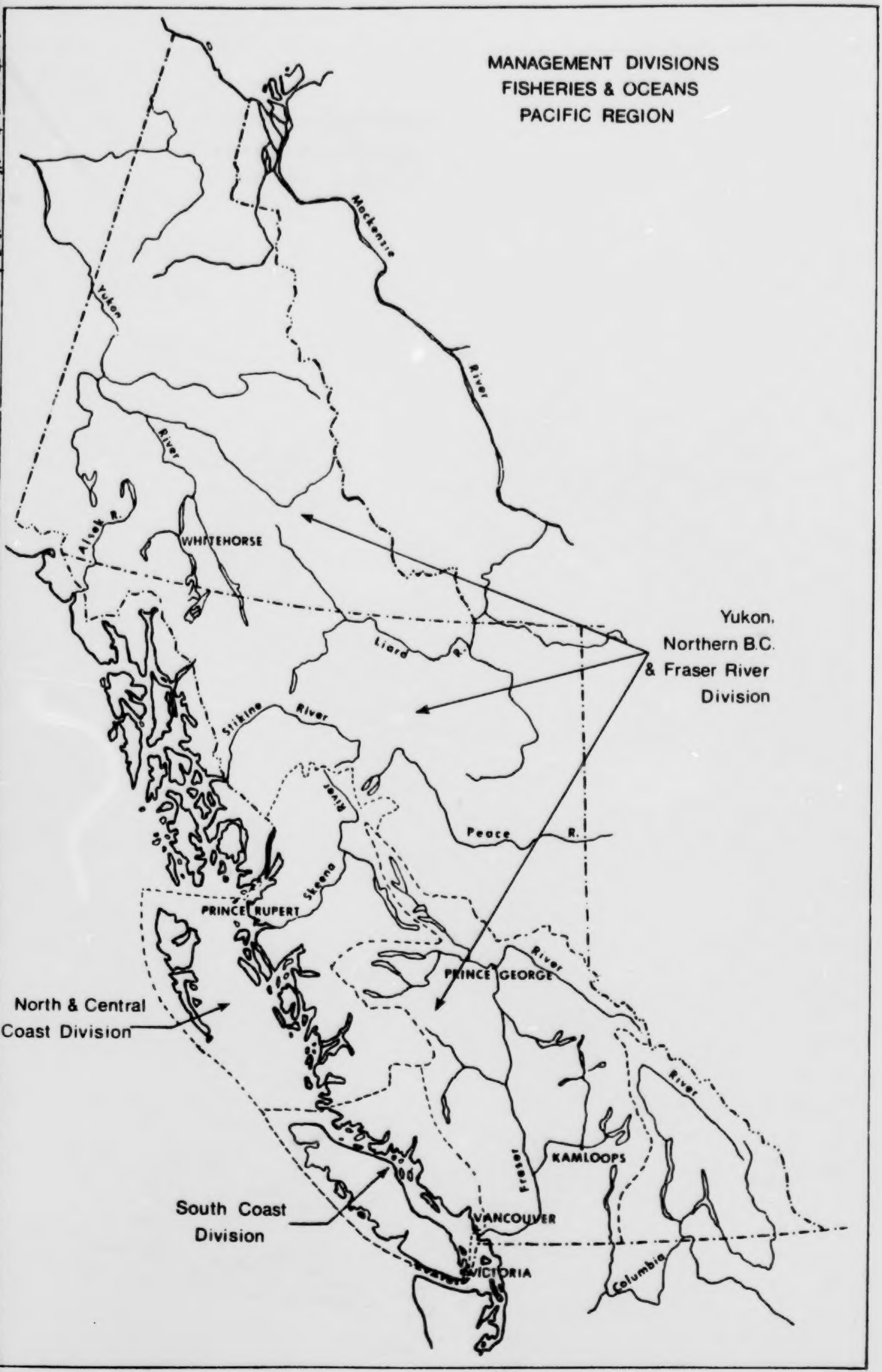


STATISTICAL AREAS
FISHERIES & OCEANS
PACIFIC REGION

1
3
PRINCE RUPERT
4
QUEEN
CHARLOTTE
ISLANDS
5
2 West
2 East
6
7
8
BABINE LAKE
OWIKENO LAKE
RIVERS INLET
9
SMITH INLET
10
11
12
JOHNSTONE STRAIT
27
VANCOUVER
ISLAND
13
15
16
26
25
STRAIT OF GEORGIA
14
28
VANCOUVER
29
17
24
23
18
20
VICTORIA
19
JUAN DE FUCA STRAIT


CONSERVATION DISTRICTS
FISHERIES & OCEANS
PACIFIC REGION

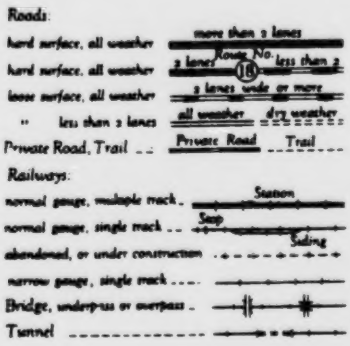
YUKON
TERRITORY
BRITISH COLUMBIA
C.D. 10
C.D. 8
C.D. 9
QUEEN
CHARLOTTE
ISLAND
C.D. 7
C.D. 1
C.D. 6
C.D. 5
VANCOUVER
ISLAND
C.D. 2
C.D. 3
C.D. 4

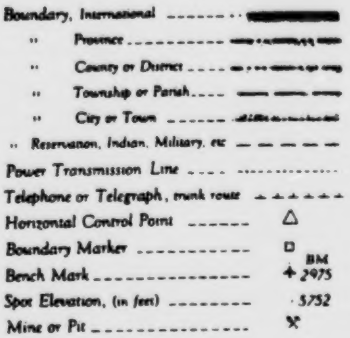


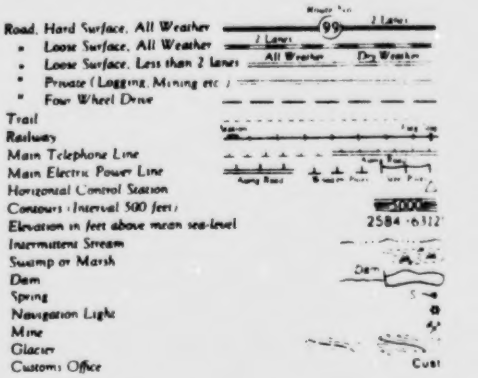
MANAGEMENT DIVISIONS
FISHERIES & OCEANS
PACIFIC REGION

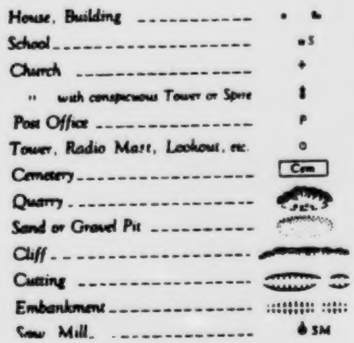
Mackenzie River
Yukon River
Alsek R.
WHITEHORSE
Liard R.
Stikine River
Peace R.
Skeena River
PRINCE RUPERT
PRINCE GEORGE
Fraser River
KAMLOOPS
VANCOUVER
VICTORIA
Columbia River
Yukon, Northern B.C. & Fraser River Division
North & Central Coast Division
South Coast Division

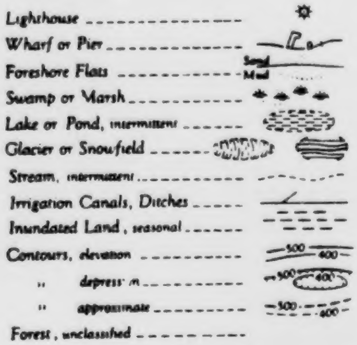
MAP REFERENCES

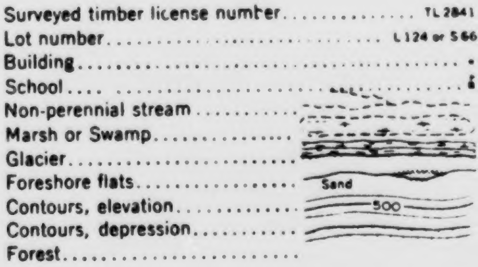

Roads:
hard surface, all weather
more than 2 lanes
hard surface, all weather
2 lanes
Route No.
18
less than 2
loose surface, all weather
2 lanes wide or more
less than 2 lanes
all weather
dry weather
Private Road, Trail
Private Road
Trail
Railways:
normal gauge, multiple track
Station
normal gauge, single track
Stop
Siding
abandoned, or under construction
narrow gauge, single track
Bridge, underpass or overpass
Tunnel

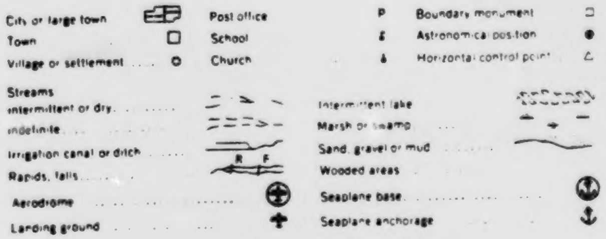

Boundary, International
Province
County or District
Township or Parish
City or Town
Reservation, Indian, Military, etc
Power Transmission Line
Telephone or Telegraph, trunk route
Horizontal Control Point
Boundary Marker
Bench Mark
BM
2975
Spot Elevation, (in feet)
5752
Mine or Pit

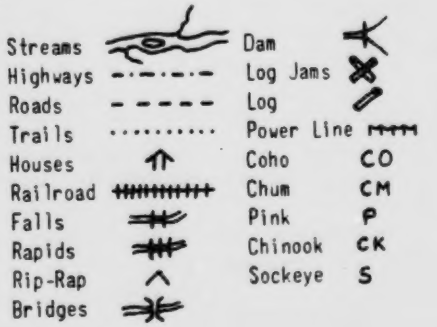

Road, Hard Surface, All Weather
Route No.
99
2 Lanes
Loose Surface, All Weather
2 Lanes
Loose Surface, Less than 2 lanes
All Weather
Dry Weather
Private (Logging, Mining etc.)
Four Wheel Drive
Trail
Railway
Station
Main Telephone Line
Main Electric Power Line
Along Road
Horizontal Control Station
Contours (Interval 500 feet)
5000
Elevation in feet above mean sea-level
2584 ·6312'
Intermittent Stream
Swamp or Marsh
Dam
Dam
Spring
S
Navigation Light
Mine
Glacier
Customs Office
Cust


House, Building
School
S
Church
with conspicuous Tower or Spire
Post Office
P
Tower, Radio Mast, Lookout, etc.
Cemetery
Cem
Quarry
Sand or Gravel Pit
Cliff
Cutting
Embankment
Saw Mill
SM


Lighthouse
Wharf or Pier
Foreshore Flats
Sand
Mud
Swamp or Marsh
Lake or Pond, intermittent
Glacier or Snowfield
Stream, intermittent
Irrigation Canals, Ditches
Inundated Land, seasonal
Contours, elevation
500
400
depression
500
400
approximate
500
400
Forest, unclassified


Surveyed timber license number
TL 2841
Lot number
L 124 or S 66
Building
School
Non-perennial stream
Marsh or Swamp
Glacier
Foreshore flats
Sand
Contours, elevation
500
Contours, depression
Forest


City or large town
Town
Village or settlement
Post office
P
School
Church
Boundary monument
Astronomical position
Horizontal control point
Streams
intermittent or dry
indefinite
Irrigation canal or ditch
Rapids, falls
R
F
Aerodrome
Landing ground
Intermittent lake
Marsh or swamp
Sand, gravel or mud
Wooded areas
Seaplane base
Seaplane anchorage


Streams
Highways
Roads
Trails
Houses
Railroad
Falls
Rapids
Rip-Rap
Bridges
Dam
Log Jams
Log
Power Line
Coho
CO
Chum
CM
Pink
P
Chinook
CK
Sockeye
S

STANDARDS USED ON STREAM DATA PAGE

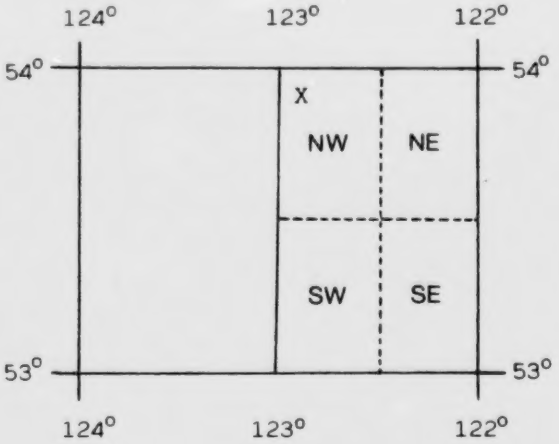
Name of Stream: Name as given in Gazetteer of Canada, British Columbia 1966 edition; local or non-gazetted names are added in lower case type.

Conservation District: As defined by the Conservation and Protection Service (April 1965).

Statistical Area: As defined by Department of the Environment, Fisheries Operations Statistical Map (January 1974).

Location and Position: Defined by quadrant indexing. Each geographical quadrilateral of the earth's surface of 1 degree in extent in latitude and longitude is divided into the SE, SW, NE and NW quarters. The south-east corner of each quadrilateral gives the initial point for the figure of reference (Gazetteer of Canada).

EXAMPLE "X"
53° 122° NW



Length: The portion of the stream accessible to spawning salmon.

Width: Average width, estimated to the nearest metre for the described length.

Drainage: Area in square kilometres of the entire drainage basin feeding the stream.

Composition:

Bedrock	bedrock
Boulder	>256 mm
Coarse	50.9 - 256 mm
Fine	3.37 - 50.8 mm
Sand & Silt	<3.37 mm
Unclassified	where bottom cannot be observed, e.g. log jams, pools, water colour, etc.

Gradient: Expressed as a percentage

Wetted Area: Number of square metres of stream bed under water at average flows within the described length.

Spawning Area: Estimated square metres of stream bed suitable for salmon spawning within the described length.

Discharge: Mean annual discharge. Maximum and minimum values are either daily means or instantaneous discharges. The latter are identified by (Inst.). Discharge data is taken from "Historical Stream Flow Summary", British Columbia, Water Survey of Canada.

Temperature: As described. (°C)

Barriers and Points of Difficult Ascent: Complete and partial barriers to salmon and their distance from the stream mouth. Species likely to be affected may be listed. Both natural and man-made obstructions are defined.

Spawning Distribution: Portion of the stream utilized by each species. Distribution is indicated by brief comments opposite the species.

Potential of Inaccessible Portion of Stream: Indicates whether or not the inaccessible portion of the stream could be utilized by spawning salmon.

General Remarks: Emphasizes features of stream and spawning populations. Also includes industrial activity, routes of accessibility, etc. The comments with dates are taken from "Annual Reports of Salmon Streams & Spawning Grounds" (B.C. 16's). In some cases, references to additional information not included in the General Remarks may be given.

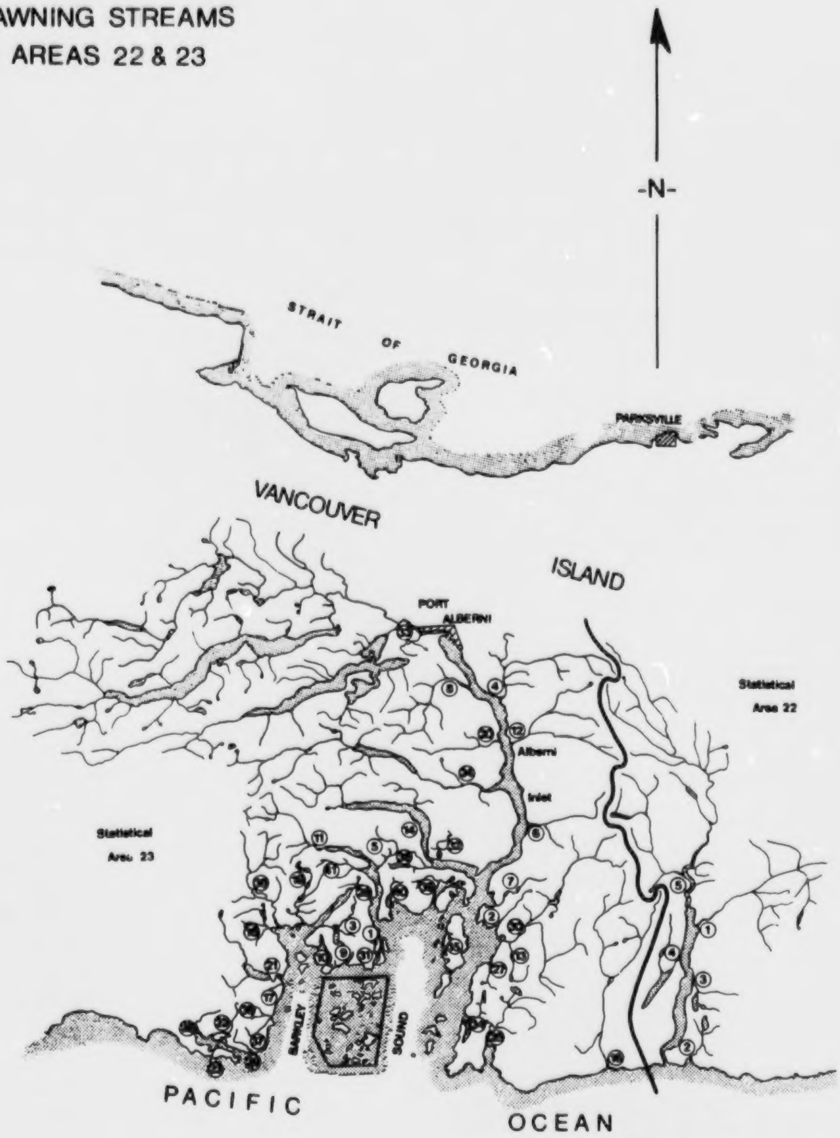
Escapement Records: The escapement represents the mid point of the coded range of escapement for each species. For example: the letter "H" representing 5000-10000 fish would be entered as 7500. Where absolute numbers are provided by Fisheries Personnel, these numbers are entered. N/O means the stream was inspected but no fish were observed; UNK means there was evidence of fish present but no estimates were made; NO RECORDS means no escapement records for the applicable years could be found in the escapement files.

Timing: Dates which salmon arrive in the stream, begin to spawn, reach peak spawning period and finish spawning.

E = early (1st to 10th of the month)
M = mid (11th to 20th of the month)
L = late (21st to end of the month)

NB: Distance references are from the mouth of the stream unless otherwise stated.

SALMON SPAWNING STREAMS
STATISTICAL AREAS 22 & 23


-N-
STRAIT OF GEORGIA
PARKSVILLE
VANCOUVER ISLAND
PORT ALBERNI
Alberni Inlet
Statistical Area 22
Statistical Area 23
BARKLEY SOUND
PACIFIC OCEAN
20 miles

Area 22
1. Caycuse River
2. Cheewhat River
3. Doobah Creek
4. Hobiton River
5. Nitinat River

Area 23
1. Canoe Pass Creek
2. Carnation Creek
3. Cataract Creek
4. China Creek
5. Coleman Creek
6. Consinka Creek
7. Cour d'Alene Creek
8. Cous Creek
9. Dutch Harbour Creek - east
10. Dutch Harbour Creek - west
11. Effingham River
12. Franklin River
13. Fredrick Creek
14. Henderson River
15. Holford Creek
16. Klanawa River
17. Little Maggie River
18. Little Toquart Creek
19. Lucky Creek
20. Macktush Creek
21. Maggie River
22. Mercantile Creek
23. Mercer Creek
24. Nahmint River
25. Pachena River
26. Pipestem River
27. Poet Nook Creek
28. Salmon Creek
29. Sandy Creek
30. Sarita River
31. Sechart Creek
32. Snug Basin Creek
33. Somass River
34. Sugsaw Creek
35. Toquart River
36. Two Rivers - east
37. Two Rivers - west
38. Uchuck Creek
39. Useless Creek
40. Vernon Creek
41. West Creek

ESCAPEMENT RECORD FOR STATISTICAL AREA 22

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48	1500	750	2250	7500		
49	9000	750	3000	3000		
50	9000	3500	3750	78500		
51	3000	3500	4500	12500		
52	9000	750	9000	46000		
53	9000	750	3000	16500		
54	9000	750	2650	86000		
55	3000	750	4300	12500		
56	5000	400	1700	46075		
57	5000	3500	1575	23325		
58	5000	1500	2125	18975	200	
59	5000	400	1600	22975		
60	5000	750	925	44075	25	
61	9000	1500	2125	44200		
62	5000	1500	2125	18725	75	
63	5000	1500	1050	6725		
64	9025	3500	4325	44200	25	
65	9000	3525	4150	80275		
66	5000	3500	4350	8450		
67	9500	1500	4600	21150		
68	2500	3500	4925	124700		
69	3575	1500	2000	18775		
70	2925	750	2325	8675		
71	8100	1200	1700	55200		
72	4250	800	775	264575		
73	1575	850	4325	171025		
74	3100	3000	1375	98100		
75	8250	800	1025	9900		
76	6250	1600	930	19675		
77	3380	1000	1380	43700		
78	2400	1200	1840	8400		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE						
START						
PEAK						
END						

REMARKS

ESCAPEMENT RECORD FOR STATISTICAL AREA 23

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947			200	3500	75	— —
48	85000	16725	59825	122754		
49	215000	17000	32150	116750	25	
50	50000	18825	58675	233150		
51	115000	12225	68900	143075		
52	30025	12400	122975	67975	3775	
53	50000	13775	57800	227675		
54	70000	1290	82850	326925	300	
55	50000	12375	57110	53525	1525	
56	15000	16950	44900	93900	900	
57	107500	9150	26175	140100		
58	50000	17400	50800	200875	1700	
59	50000	10050	46325	94475	50	
60	42500	9100	22300	54400	950	
61	50000	11350	49475	50000	232	
62	70000	8973	45950	58200	850	
63	50000	10254	45500	36100	3525	
64	70000	16325	50875	75525	750	
65	50000	9500	47275	70175	3500	
66	150000	10025	89625	116175	1500	
67	150000	16275	88850	134250	200	
68	134000	15300	77850	222950	425	
69	130000	14375	41965	170375	25	
70	45000	9925	133625	145375	125	
71	74525	16200	92075	89875	200	
72	140500	10850	36050	204750	800	
73	301025	12350	145292	147353		
74	99000	14180	132795	144570	680	
75	201000	16800	48109	115410	220	
76	151822	14510	42310	195665	1380	
77	297880	13495	41145	128080		
78	158978	9555	43604	150050	130	
79						
80						
81						
82						
83						
84						
85						

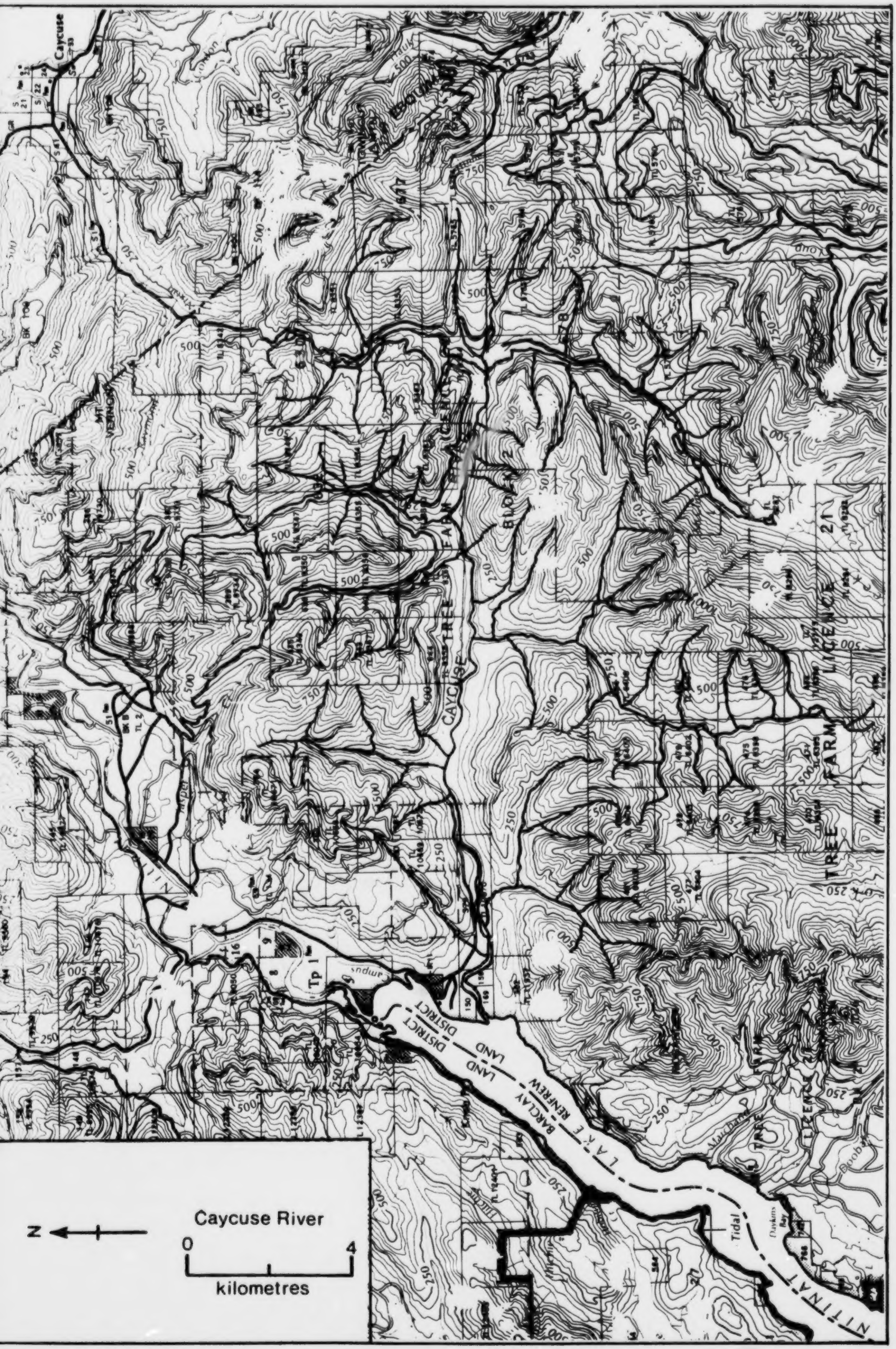
TIMING:

ARRIVE						
START						
PEAK						
END						

REMARKS

STREAM DATA

STATISTICAL AREA 22


Caycuse River
N
0
4
kilometres
Caycuse
MT. VERNON
CAYCUSE TREE FARM LICENCE
TREE FARM LICENCE
BARCLAY LAND DISTRICT
RENFREW LAND DISTRICT
LAKE
NITINAT
Tidal
Tp 1

NAME OF STREAM CAYCUSE RIVER

CONSERVATION DISTRICT 4 STATISTICAL AREA 22

LOCATION OF MOUTH Flows W. into Nitinat L., Renfrew Dist.

POSITION 48 124 NW

LENGTH 19 km WIDTH 9 m DRAINAGE 208 km^2

COMPOSITION: BEDROCK 40% BOULDER 15% COARSE 10% FINE 10%

SILT & SAND 5% UNCLASSIFIED 20%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.4 km
0.25 - 0.50	0.4 - 1.2 km
0.50 - 0.75	
0.75 - 1.00	
>1.00	1.2 - 19 km

WETTED AREA 171000 m^2 SPAWNING AREA 34200 m^2

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Passable cascades in canyon from 1.2 to 12.0 km

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- through upper reaches
CHUM	- 0 to 1.6 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	- throughout, mainly in upper reaches

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

- The first two tributaries (unnamed) are each passable for 3.2 kilometres.
- 1970. Some mortality of chum and coho resulted from the inversion of anaerobic waters in Nitinat Lake.
- 1978. Logging commenced in the upper watershed.

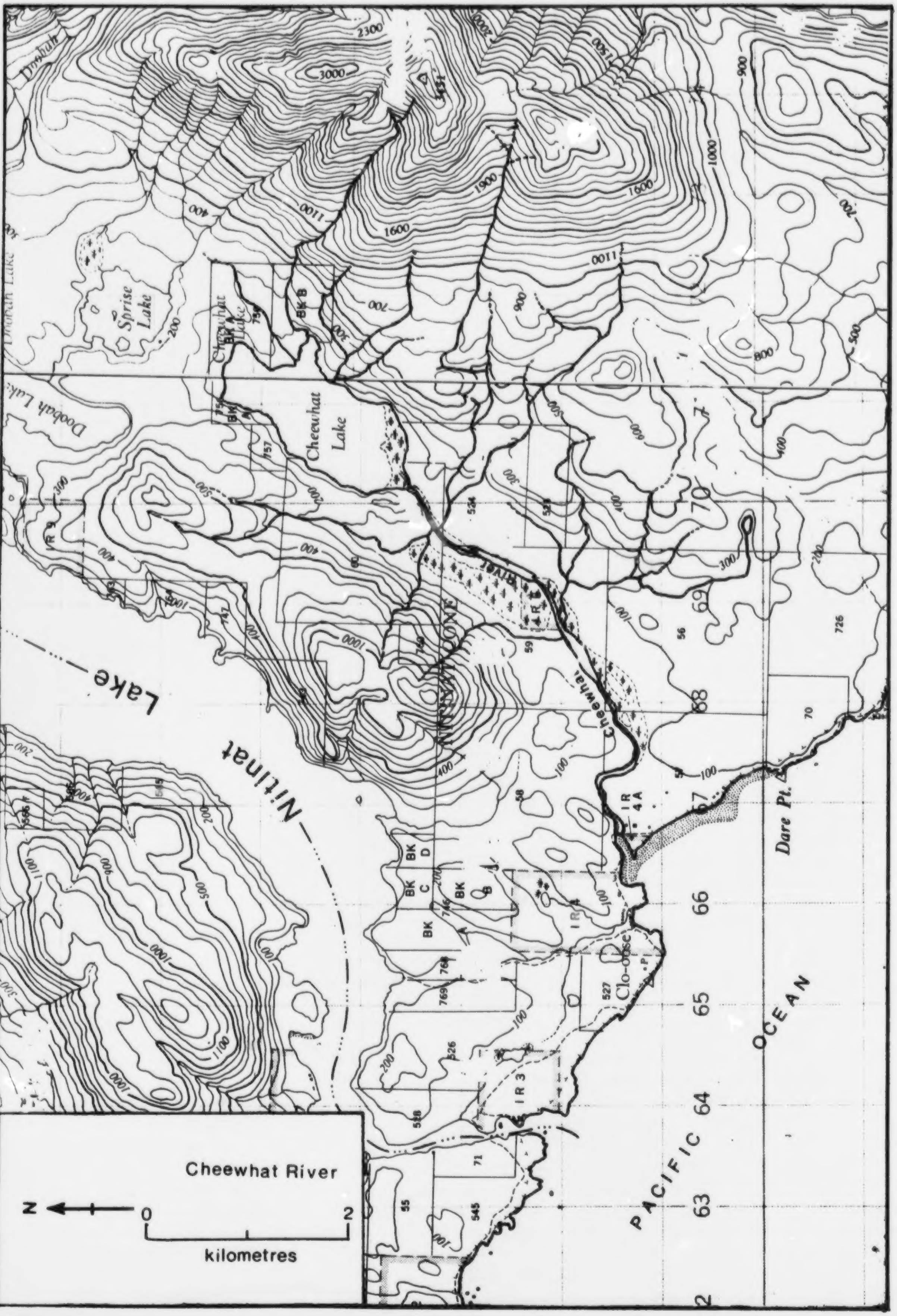
ESCAPEMENT RECORD FOR CAYCUSE RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50			NO RECORDS	FROM 1942 -	1950	
51			750	1500		400
52			750	3500		400
53			750	1500		400
54			400	3500		400
55			400	1500		75
56			200	3500		400
57			400	750		400
58			200	400		400
59			75	400		400
60			75	1500		400
61			200	1500		UNK
62			200	200		UNK
63			200	200		200
64			400	1500		200
65		25	200	200		UNK
66			400	75		UNK
67			750	1500		
68			750	3500		UNK
69			200	750		UNK
70			400	750		400
71			75	1500		400
72			200	15000		400
73			400	3500		400
74			200	1500		UNK
75			200	750		UNK
76			250	350		
77			320	300		
78			300	300		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			NOV	L. OCT		
START			NOV	E. NOV		
PEAK			L. NOV	NOV		
END			L. DEC	L. NOV		

REMARKS


Cheewhat River
N
0
2
kilometres
Nitinat Lake
Cheewhat Lake
Cheewhat Lake
Sprise Lake
Doobah Lake
Cheewhat River
PACIFIC OCEAN
Dare Pt.
Clo-oose
IR 4A
IR 3
BK B
BK C
BK D
63
64
65
66
67
68
69
70
3000
2300
1900
1600
1100
1000
900
800
700
500
400
300
200
100

NAME OF STREAM CHEEWHAT RIVER

CONSERVATION DISTRICT 4 STATISTICAL AREA 22

LOCATION OF MOUTH Flows SW. into Pacific Ocean, S. of Nitinat L., Renfrew Dist.

POSITION 48 124 NW

LENGTH 3.2* km WIDTH 9 m DRAINAGE 15.5 km²

COMPOSITION: BEDROCK ______ BOULDER ______ COARSE 10% FINE 40%

SILT & SAND 30% UNCLASSIFIED 20%

PERCENT GRADIENT

0.00 - 0.25	0 - 2.4 km
0.25 - 0.50	2.4 - 3.2 km
0.50 - 0.75	
0.75 - 1.00	
>1.00	

WETTED AREA 28800 m² SPAWNING AREA 14400 m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	- in Cheewhat Lake
CHINOOK	
COHO	- throughout
CHUM	- lower reaches
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

*Length is from the mouth to the outlet of Cheewhat Lake. Composition, wetted area, and spawning area are based on this length.

- There is a small run of creek sockeye in this creek.

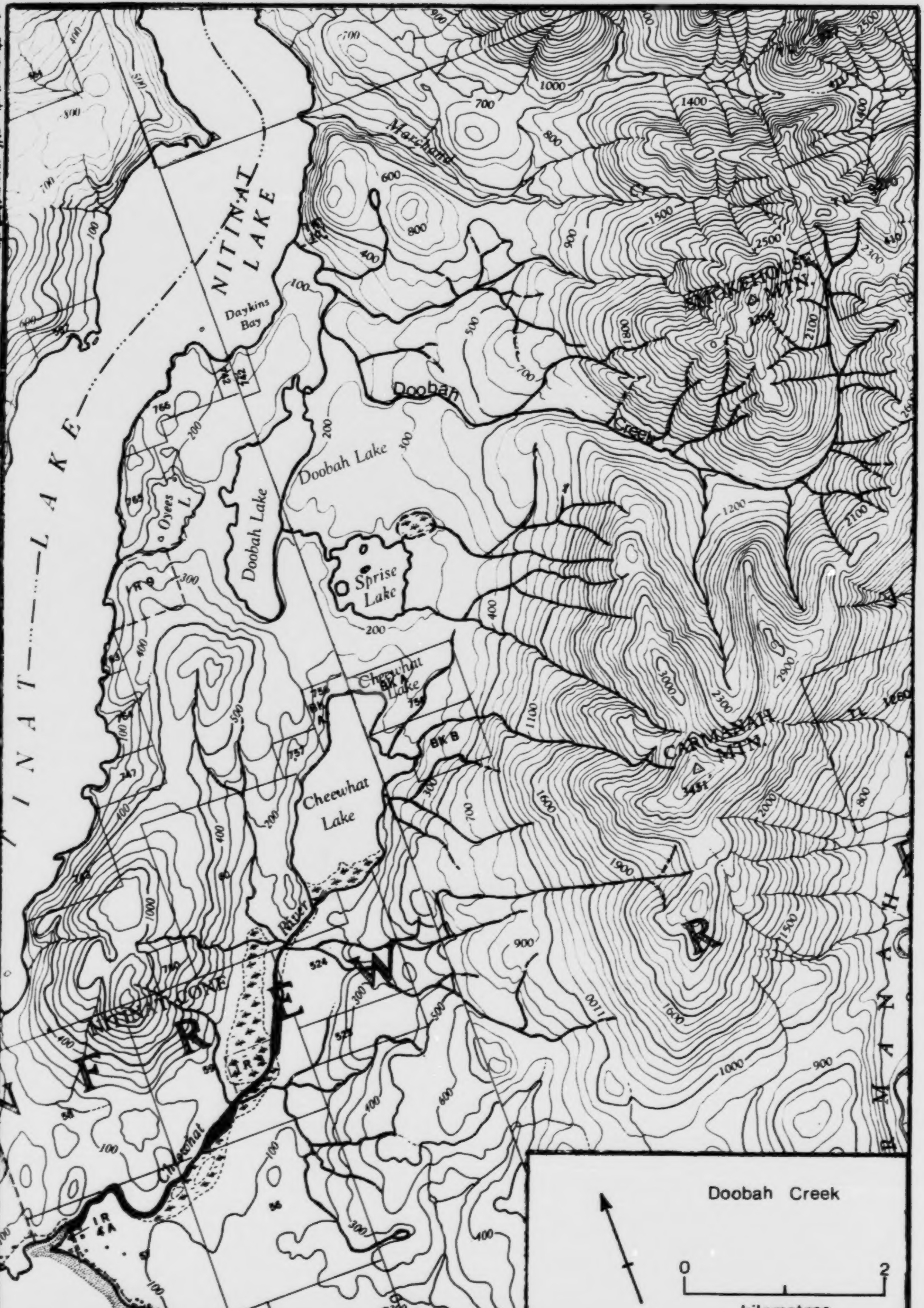
ESCAPEMENT RECORD FOR CHEEWHAT RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48	1500		1500			
49	1500		1500			
50	1500		1500			
51	1500		1500			
52	1500		750			
53	1500		750			
54	1500		750			
55	1500		400			
56	1500		750	75		
57	1500		400	75		
58	1500		400	75		
59	1500		750	75		
60	1500		75	75		
61	1500		400	200		
62	1500		400	25		
63	1500		75	25		
64	1500		400	200		
65	1500		400	75		
66	1500		400	75		
67	1500		75	400		
68	200		75	200		
69	75		75	25		
70	400		200	25		
71	75		25	N/0		
72	750		75	75		25
73	75		200	25		
74	500		75	N/0		
75	200		75	N/0		
76	250		90	75		
77	230		80	50		
78	200		70			
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE	FEB		OCT	OCT		
START	OCT		L. OCT	L. OCT		
PEAK	E. NOV		NOV	NOV		
END	NOV		DEC	NOV		

REMARKS


NITINAT LAKE
Daykins Bay
Marchand
Doobah Creek
Doobah Lake
Doobah Lake
Oyees L.
Sprise Lake
Cheewhat Lake
Cheewhat Lake
Cheewhat River
SMOKEHOUSE MTN.
CARMANAH MTN.
NITINAT CONE
I R 4A
LAKE
RENFREW
CARMANAH
Doobah Creek
0
2
kilometres

NAME OF STREAM DOOBAH CREEK

CONSERVATION DISTRICT 4 STATISTICAL AREA 22

LOCATION OF MOUTH Flows NW. into Nitinat L.,N. of Doobah L., Renfrew Dist.

POSITION 48 124 NW

LENGTH 3.2 km WIDTH 7.6 m DRAINAGE 26 km²

COMPOSITION: BEDROCK 30% BOULDER 40% COARSE 10% FINE 5%

SILT & SAND UNCLASSIFIED 15%

PERCENT GRADIENT	
0.00 - 0.25	- 0 - 0.8 km
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
>1.00	- 0.8 - 1.6 km

WETTED AREA 24320 m² SPAWNING AREA 3650 m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Passable 1.5 metre falls at 1.6 kilometres.

Impassable 3.7 metre falls at 0.8 kilometres from the outlet of Doobah Lake.

SPAWNING DISTRIBUTION

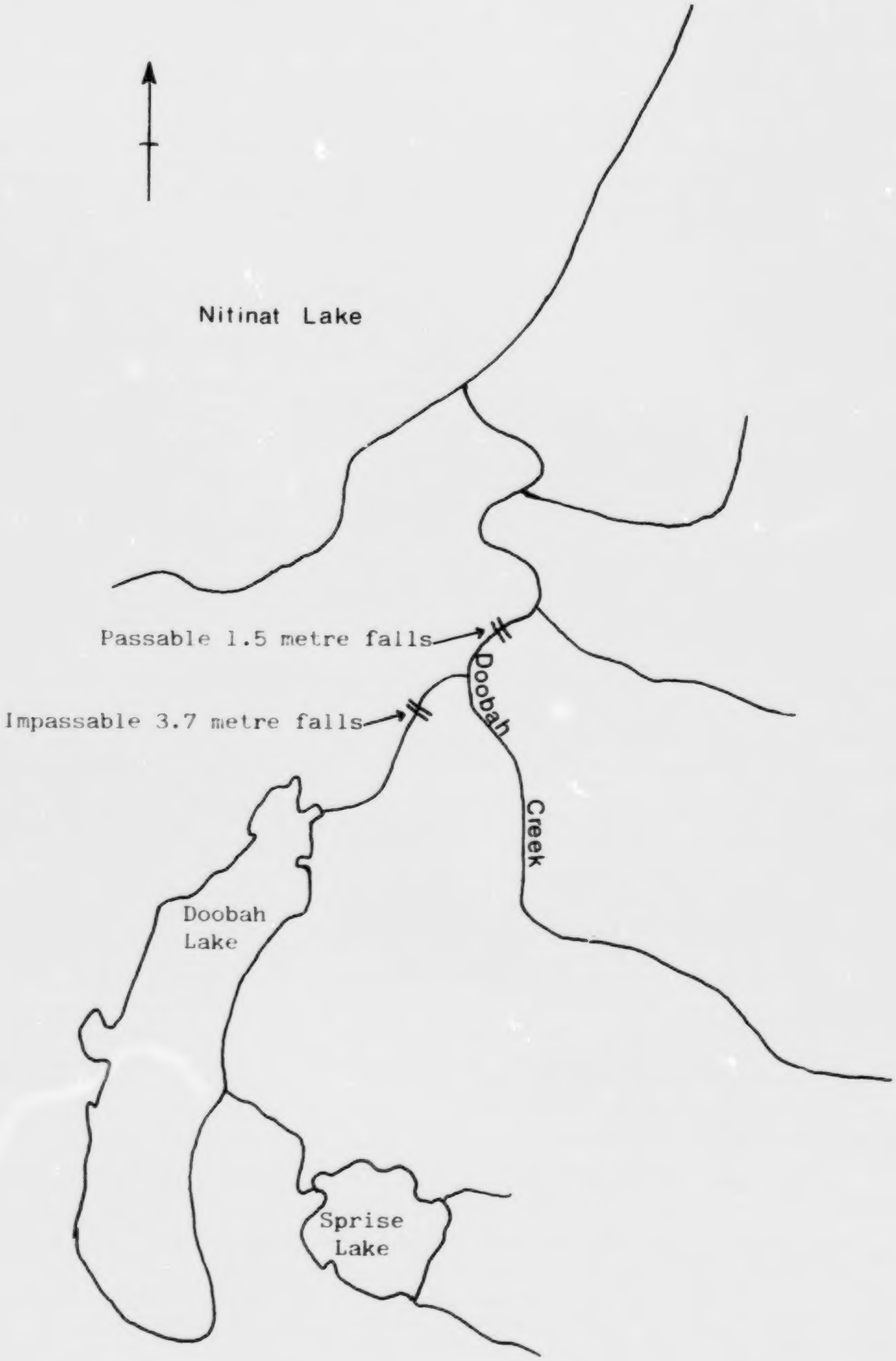
SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to 3.2 km
CHUM	- to 0.8 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	- to 3.2 km

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

- 1970. Some mortality of chum and coho resulted from the inversion of anaerobic waters in Nitinat Lake.
  This watershed has been logged.

Sketch of Doobah Creek showing location of falls.


Nitinat Lake
Passable 1.5 metre falls
Impassable 3.7 metre falls
Doobah Creek
Doobah Lake
Sprise Lake

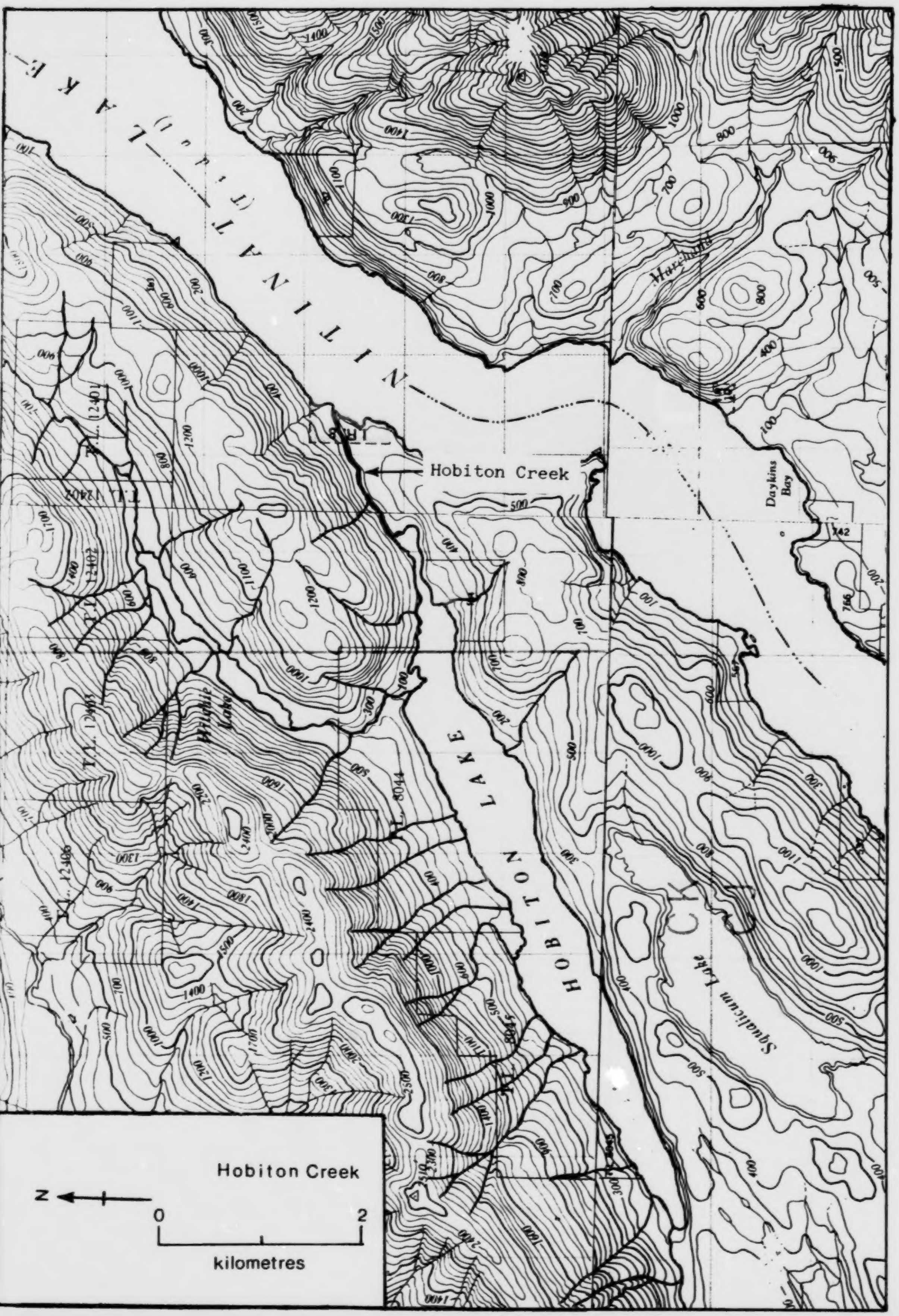
ESCAPEMENT RECORD FOR DOOBAH CREEK

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
53						
54						
55						
56						
57						
58						
59						
60						
61						
62						
63			NO RECORDS	FROM 1942 -	1964	
64						
65			25	1500		
66			25	400		
67			200	750		
68			400	3500		
69			200	3500		
70			200	400		UNK
71			75	200		25
72			75	12000		25
73			200	1500		
74			150	800		
75			75	400		
76			125	850		
77			115	800		
78			150	300		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			E. NOV	L. OCT		
START			NOV	L. OCT		
PEAK			DEC	E. NOV		
END			L. DEC	L. NOV		

REMARKS


Hobiton Creek
NITINAT LAKE
(T.I.d.)
HOBITON LAKE
Squalicum Lake
Daykins Bay
T.L. 12401
T.L. 12402
L. 8044
Hobiton Creek
N
0
2
kilometres

NAME OF STREAM HOBITON CREEK (Hobarton River)

CONSERVATION DISTRICT 4 STATISTICAL AREA 22

LOCATION OF MOUTH Flows NE. into Nitinat Lake, Barclay Dist.

POSITION 48 124 NW

LENGTH 7.2 km WIDTH 12.2 m DRAINAGE 40 km^2

COMPOSITION: BEDROCK 15% BOULDER 30% COARSE 30% FINE 20%

SILT & SAND UNCLASSIFIED 5%

PERCENT GRADIENT	
0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
>1.00	- 0 - 1.6 km

WETTED AREA 87840 m^2 SPAWNING AREA *See Remarks m^2

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	- in Hobiton Lake
CHINOOK	
COHO	- throughout
CHUM	- in lower reaches
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

*Length of stream between Hobiton and Nitinat Lake = 2.4 km. Spawning area = 14640 sq. m. in the stream between the two lakes and 8360 sq. m. of beach spawning area in Hobiton Lake.

- An early run of sockeye occurs from mid April to July.
- An Indian food fishery for sockeye exists on this stream.

References:

Anon. 1972. Hobiton Aquatic Habitat Protection Plan. C.O.E., F.M.S., Pac. Reg. MS. 31-3-N7. 16 pp.

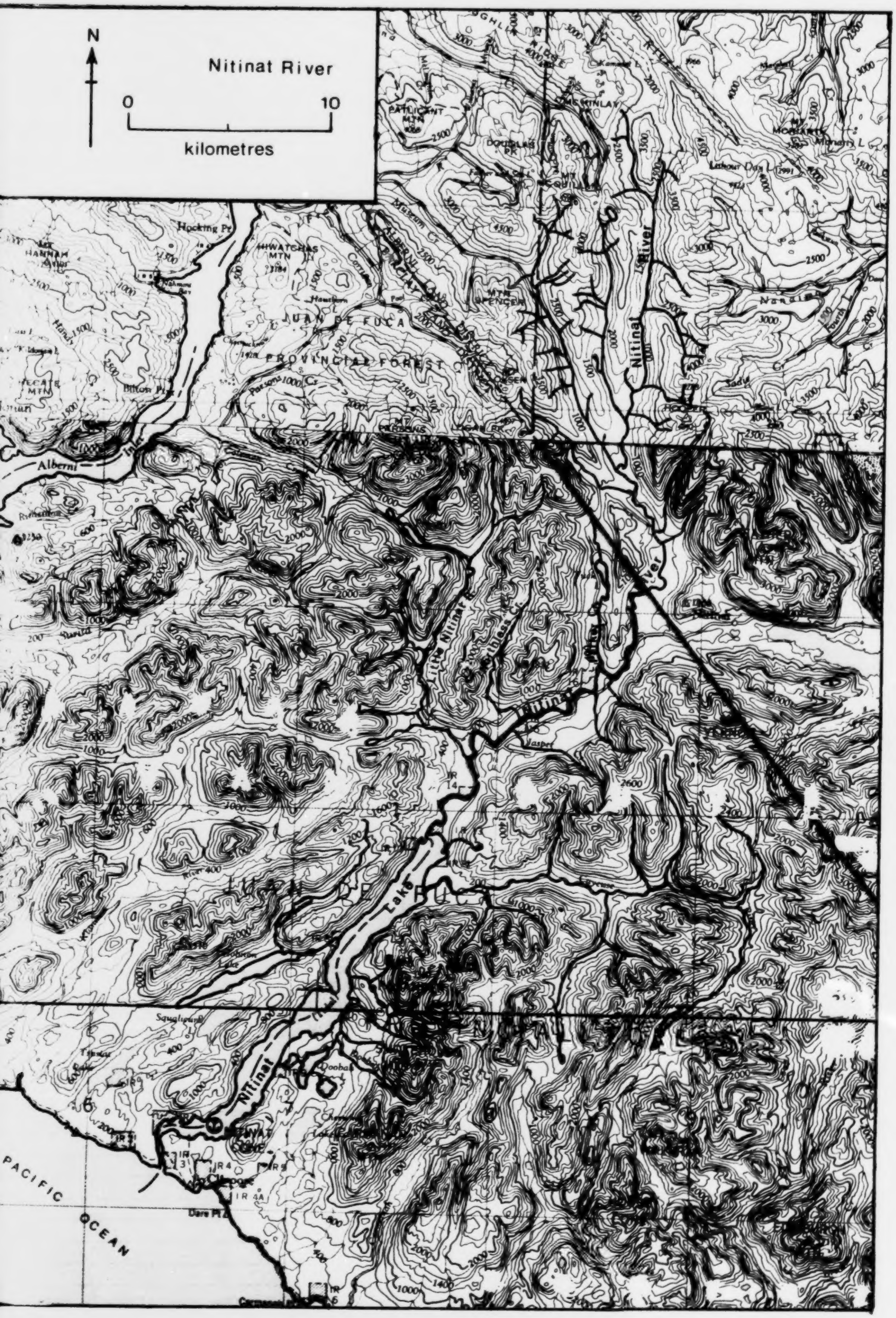
ESCAPEMENT RECORD FOR HOBITON CREEK (Hobarton River)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48		UNABLE TO DETERMINE THE NUMBER OF SPAWNERS				
49	7500		750	1500		
50	7500		750	3500		
51	1500		750	3500		
52	7500		N/0	7500		
53	7500		N/0	7500		
54	7500		N/0	7500		
55	1500			7500		
56	3500			7500		
57	3500		25	7500		
58	3500		25	3500		
59	3500		25	7500		
60	3500		25	7500		
61	7500		25	7500		
62	3500		25	3500		
63	3500		25	1500		
64	7500		25	7500		
65	7500		25	3500		
66	3500		25	400		
67	8000		75	3500		
68	2300		200	7500		
69	3500		25	3500		
70	2500		25	3500		
71	8000		25	3500		
72	3500		25	7500		
73	1500		25	6000		
74	2600		150	800		
75	8050		75	750		
76	6000		90	400		
77	3150		125	550		
78	2150		120	1800		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE	MAY		L. OCT	L. OCT		
START	OCT		NOV	E. NOV		
PEAK	E. NOV		DEC	L. NOV		
END	M. NOV		L. DEC	L. NOV		

REMARKS


N
Nitinat River
0
10
kilometres
Hocking Pt.
HWATCHAS MTN
HECATE MTN
Bilton Pt.
JUAN DE FUCA
PROVINCIAL FOREST
MT SPENCER
DOUGLAS PK
Alberni
Nitinat
River
Little Nitinat R.
Jasper
Lake
Nitinat
PACIFIC
OCEAN
Doobah
Clo-oose
Dare Pt.
Carmanah
IR 4
IR 5
IR 6

NAME OF STREAM NITINAT RIVER

CONSERVATION DISTRICT 4 STATISTICAL AREA 22

LOCATION OF MOUTH Flows S. into N. end of Nitinat L., Renfrew and Barclay Dists.

POSITION 48 124 NW

LENGTH 29 km WIDTH 30.5 m DRAINAGE 800 km^2

COMPOSITION: BEDROCK 10% BOULDER 5% COARSE 40% FINE 15%

SILT & SAND 10% UNCLASSIFIED 20%

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	0 - 6.4 km
0.50 - 0.75	6.4 - 9.7 km
0.75 - 1.00	9.7 - 14.5 km
>1.00	14.5 - 16 km

WETTED AREA 884500 m^2 SPAWNING AREA 486475 m^2

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Passable cascades at 16 km.

Impassable falls at 29 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	- to 16 km
CHINOOK	- to 29 km (concentrated in lower reaches)
COHO	- to 29 km and tributaries
CHUM	- to 9.7 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	- throughout

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

- Accessible Tributaries:
  1. Little Nitinat River - Impassable falls are located at 4 kilometres. This stream has very little spawning area available.
  2. Worthless Creek - This stream has approximately 3.2 kilometres of excellent spawning and rearing area.
  3. Parker Creek - This creek drains Tuck Lake. It has passable 1.8 metre falls at 0.8 kilometres and impassable 7.6 metre falls at 4.8 kilometres.
- 1969. This river is subject to flash flooding as a result of past logging activities.
- 1969. There was a heavy leech infestation of the gills of the early run chums.

(cont.)

GERNERAL REMARKS (cont.) - Nitinat River

- 1970. Inversion of anaerobic water in Nitinat Lake on Oct. 14 and Nov. 22 caused heavy mortality to the chum run and some mortality to the spring and coho runs.

References:

Bourque, S.C. 1962. A preliminary survey of the Nitinat River. D.O.E., F.M.S., Pac. Reg. Memo. 5903-85-N150. 43 pp.

Kasmer, E.T. 1968. Nitinat Lake Salmon Stocks. History and Current Status. Memo. 31-3N7.

Slaney, P. and O. Langer. 1972. Fish Kill - H S Inversion. D.O.E., F.M.S., Pac. Reg. Memo. 31-3-N7. 2 pp.

ESCAPEMENT RECORD FOR NITINAT RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48		750	750	7500		
49		750	750	1500		
50		3500	1500	75000		
51		3500	1500	7500		
52		750	7500	35000		400
53		750	1500	7500		400
54		750	1500	75000		400
55		750	3500	3500		400
56		400	750	35000		750
57		3500	750	15000		750
58		1500	1500	15000	200	750
59		400	750	15000	N/0	750
60		750	750	35000	25	750
61		1500	1500	35000		750
62		1500	1500	15000	75	750
63		1500	750	5000	N/0	750
64	25	3500	3500	35000	25	750
65	N/0	3500	3500	75000	N/0	UNK
66	N/0	3500	3500	7500	N/0	UNK
67	N/0	1500	3500	15000		UNK
68		3500	3500	110000		UNK
69		1500	1500	11000		UNK
70	25	750	1500	4000		1000
71	25	1200	1500	50000		400
72		800	400	230000		400
73		850	3500	160000		
74		3000	800	95000		
75		800	600	8000		
76		1600	375	18000		400
77		1000	740	42000		
78	50	1200	1200	6000		
79						
80						
81						
82						
83						
84						
85						

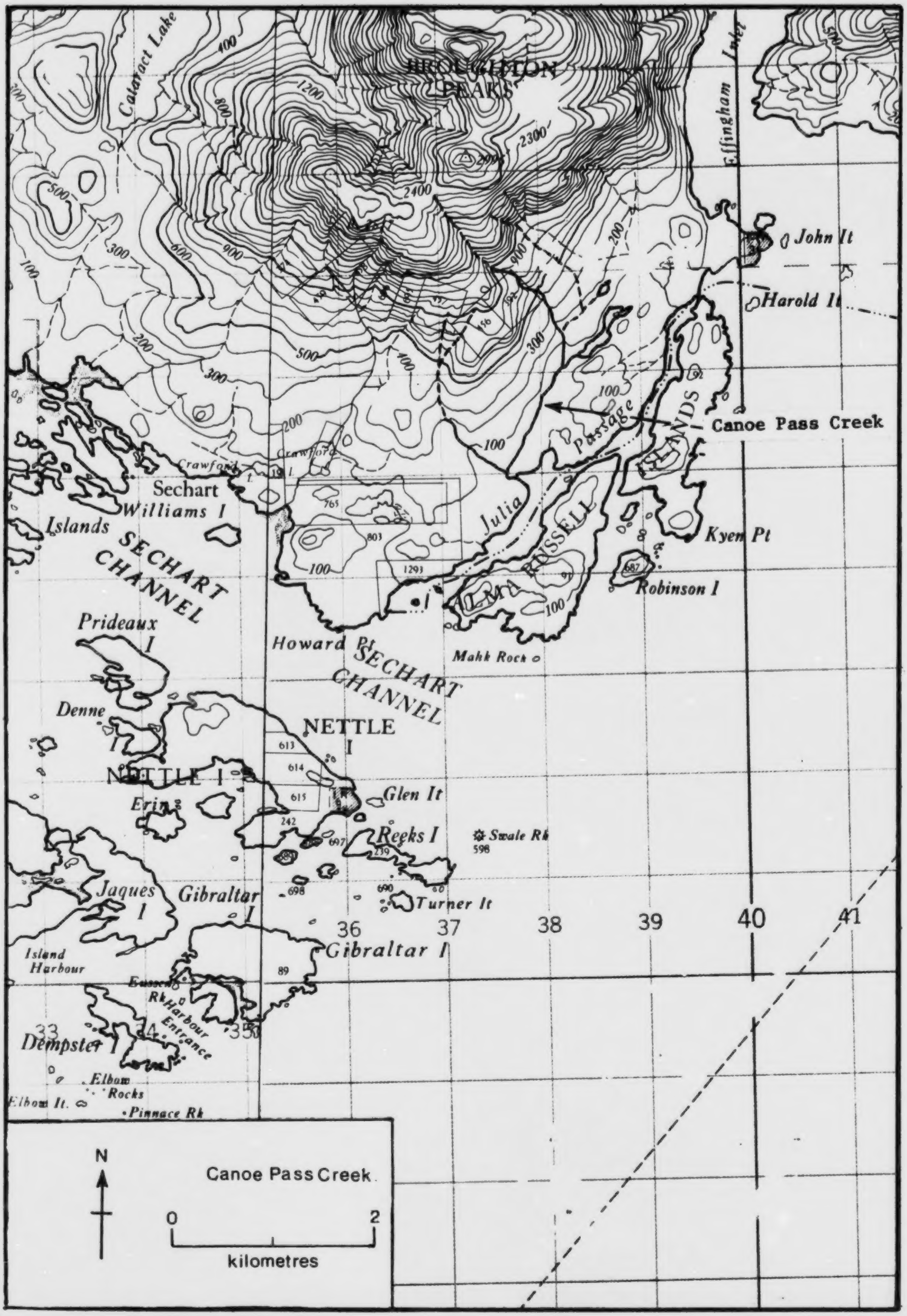
TIMING:

ARRIVE		AUG	OCT	E. OCT		
START		M. SEP	OCT	M. OCT		
PEAK		E. OCT	NOV	E. NOV		
END		L. OCT	DEC	NOV		

REMARKS

STREAM DATA

STATISTICAL AREA 23


BROUGHTON PEAKS
Cataract Lake
Effingham Inlet
John It
Harold It
Canoe Pass Creek
Passage
Julia
RUSSELL
ISLANDS
Kyen Pt
Robinson I
Crawford
Sechart
Williams I
Islands
SECHART CHANNEL
Prideaux I
Howard Pt
Mahk Rock
SECHART CHANNEL
Denne I
NETTLE I
NETTLE I
Erin
Glen It
Reeks I
Swale Rk
Jaques I
Gibraltar I
Turner It
Gibraltar I
Island Harbour
Eussen Rk
Harbour Entrance
Dempster I
Elbow Rocks
Elbow It.
Pinnace Rk
33
34
35
36
37
38
39
40
41
N
Canoe Pass Creek
0
2
kilometres

NAME OF STREAM (Canoe Pass Creek)

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows S. and SW. into Julia Passage, W. of Alma Russel Is.,
Barclay Dist. POSITION 48 125 NE

LENGTH 1.8 km WIDTH 3.6 m DRAINAGE 5.2 km^2

COMPOSITION: BEDROCK 15% BOULDER 20% COARSE 20% FINE 10%
SILT & SAND 20% UNCLASSIFIED 15%

PERCENT GRADIENT

0.00 - 0.25	0 - .3 km; 1.4 - 1.8 km
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
>1.00	0.3 - 1.4 km

WETTED AREA 6500 m^2 SPAWNING AREA 1900 m^2

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT
Passable cascades at 1.3 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- throughout
CHUM	- lower reaches; 0 - 400 m
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

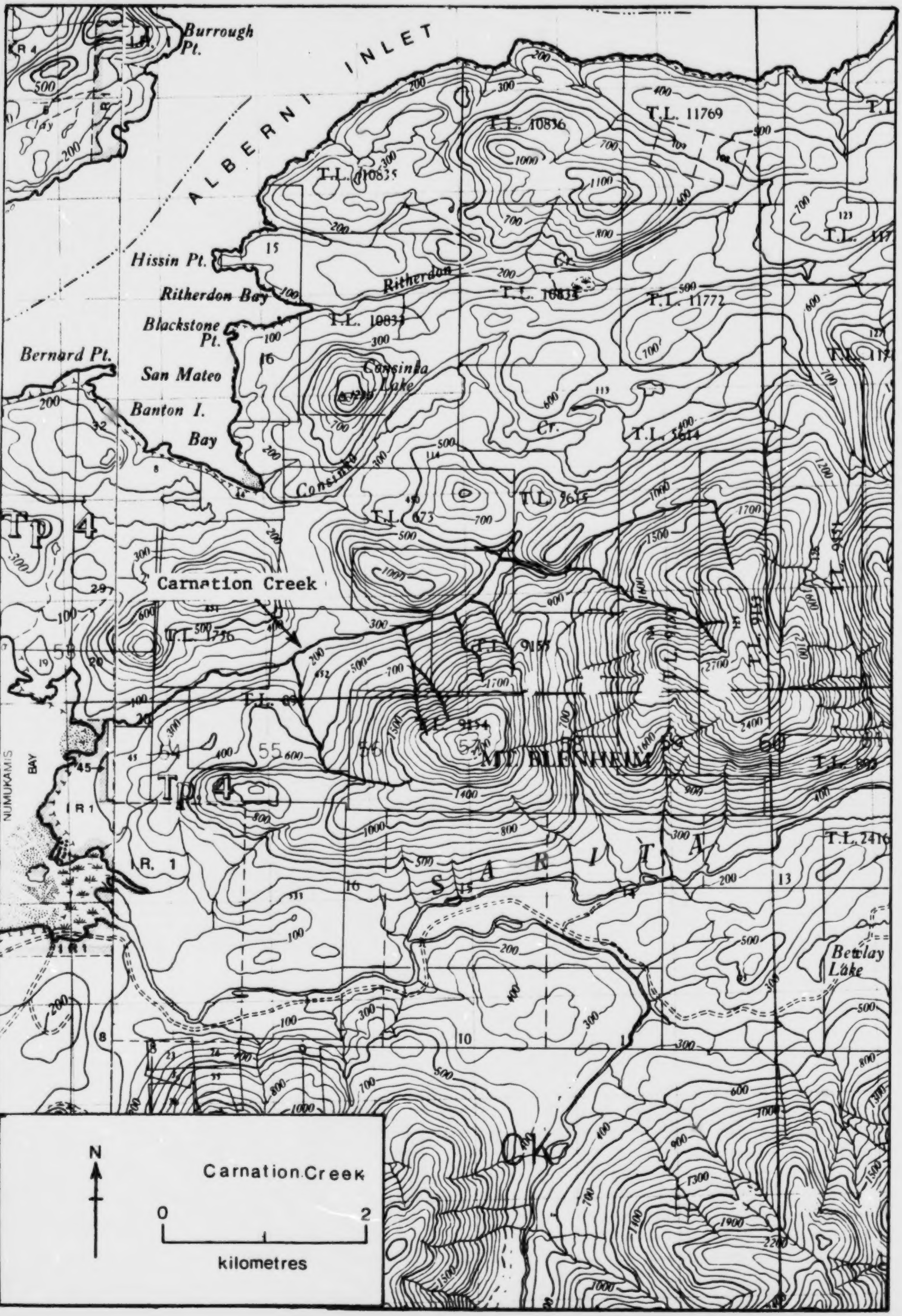
GENERAL REMARKS

ESCAPEMENT RECORD FOR (Canoe Pass Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48			200	75		
49			750	200		
50			75	1500		
51			200	750		
52			200	1500		
53			25	200		
54			75	200		
55			25	200		
56			25	75		
57			200	75		
58			75	200		
59			200	200		
60			75	200		
61			200	75		
62			200	25		
63			25	75		
64			200	200		
65			25	25		
66			25	400		
67			75	200		
68			75	200		
69			200	200		
70			200	75		
71			75	75		
72			75	200		
73			75	200		
74		25	75	150		
75			20	150		
76			50	200		
77			50	180		
78			50	200		
79						
80						
81						
82						
83						
84						
85						

TIMING:						
ARRIVE			E. OCT	E. OCT		
START			OCT	OCT		
PEAK			NOV	L. OCT		
END			DEC	NOV		

REMARKS


ALBERNI INLET
Burrough Pt.
Hissin Pt.
Ritherdon Bay
Blackstone Pt.
Bernard Pt.
San Mateo
Banton I.
Bay
Ritherdon Cr.
Consinka Lake
Consinka Cr.
Carnation Creek
MT BLENHEIM
S A R I T A
Tp. 4
NUMUKAMIS BAY
I R 1
I.R. 1
Bewlay Lake
T.L. 10836
T.L. 11769
T.L. 10835
T.L. 10834
T.L. 11772
T.L. 10833
T.L. 5614
T.L. 5615
T.L. 673
T.L. 9155
T.L. 9154
T.L. 2410
Carnation Creek
N
0
2
kilometres

NAME OF STREAM (Carnation Creek)

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows SW. into Numukamis Bay, E. of Tzartus I., Barclay Dist.

POSITION 48 125 NE

LENGTH 4.8 km WIDTH 5.5 m DRAINAGE 10 km²

COMPOSITION: BEDROCK 15% BOULDER 20% COARSE 20% FINE 20%

SILT & SAND 10% UNCLASSIFIED 15%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.4 km
0.25 - 0.50	0.4 - 1.6 km
0.50 - 0.75	
0.75 - 1.00	1.6 - 2.4 km
>1.00	2.4 - 4.8 km

WETTED AREA 26400 m² SPAWNING AREA 10600 m²

DISCHARGE (m^3/s) mean = 0.94 max = 13.9 (76/11/03) min = 0.01 (74/09/18)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- throughout; mainly 0.8 - 4.0 km
CHUM	- from tidal area to counting fence at 640m
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

- 1954. There is very good gravel in this stream for 4.8 km, after which the stream becomes steeper and the streambed bouldery.
- 1970. This marks the commencement of the Carnation Creek Project, the study of a small salmonid stream and the effects of logging upon it. The study is designed to compare 5 years of results prior to logging with 6 years of logging and 3 years of post-logging recovery.
It has encompassed studies of fish and stream insect populations, hydrological, meteorlogical, stream chemistry, stream morphology, sources of stream sediment, soil and vegetation, soil hydrology, stream algae, and the use of estuaries by salmon.

(cont.)

GENERAL REMARKS (cont.) - Carnation Creek

The Carnation Creek Project is expected to continue until 1985.

- 1975. Logging commenced this fall.

References:

Bustard, David R. 1973. Some aspects of the winter ecology of juvenile salmonids with reference to possible habitat alteration by logging in Carnation Creek, Vancouver Island. Fish. Res. Bd. Can. Manuscript Report Series No. 1277. 85 pp.

Lill, A.F. and P. Sookachoff. 1974. The Carnation Creek fish counting fence. D.O.E., F.M.S., Pac. Reg. PAC/T-74-2. 23 pp.

Narver, David W. and Bruce C. Andersen. 1974. Fish populations of Carnation Creek and other Barkley Sound Streams - 1970-1973: Data Record and Progress Report. Fish. Res. Bd. Can. Manuscript Report Series No. 1303. 115 pp.

Narver, D.W. and T.W. Chamberlin. 1976. Carnation Creek: An experiment towards integrated management. D.O.E., Pacific Biological Station, Nanaimo, B.C. Circular No. 104. 20 pp.

ESCAPEMENT RECORD FOR (Carnation Creek)

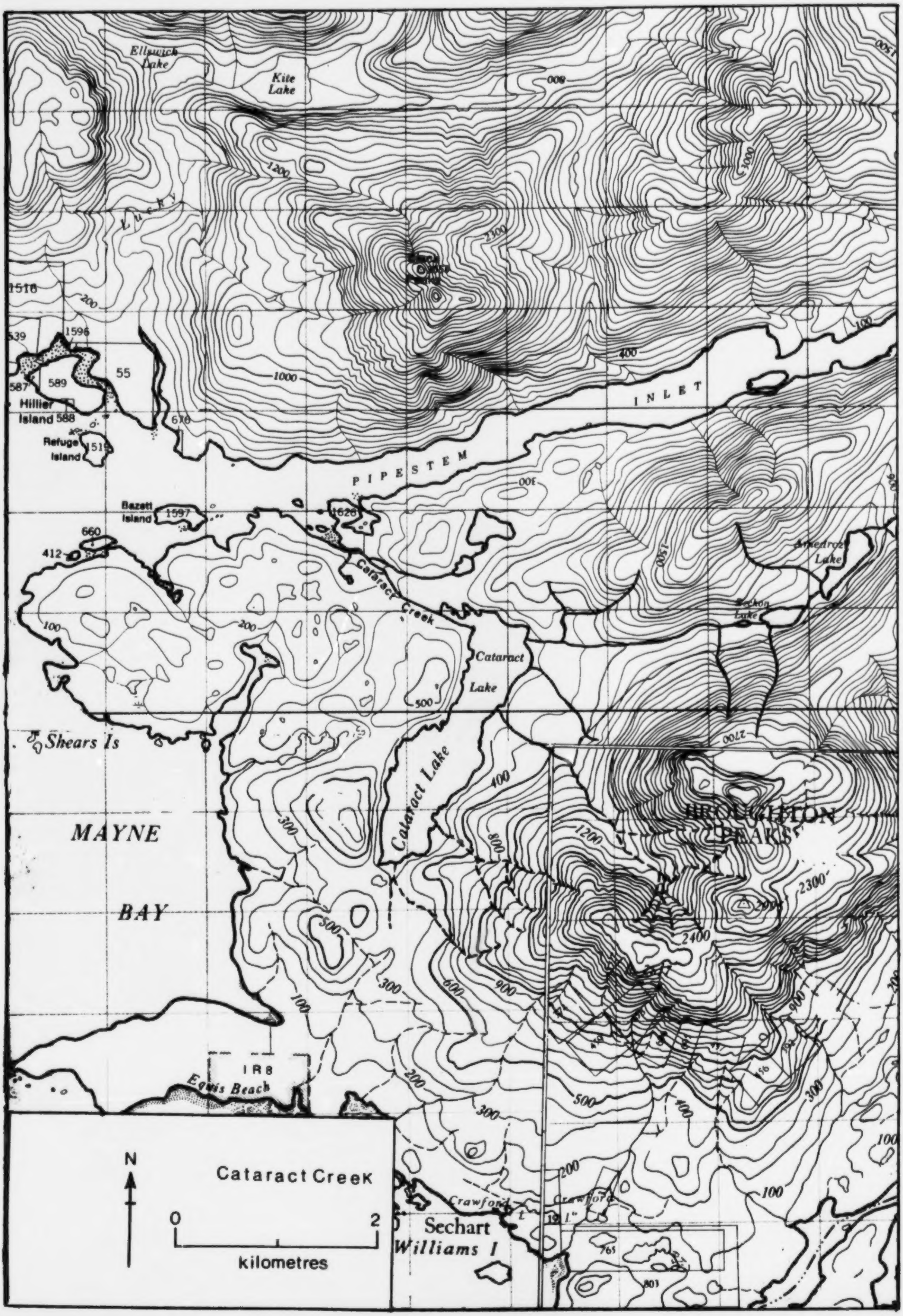
YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48			1500	255		
49			1500	3500		
50			1500	1500		
51			400	750		
52			400	750	25	
53			400	1500		
54			75	1500	75	25
55			25	400	N/O	25
56			25	200	25	25
57			25	1500	N/O	25
58			25	1500	200	25
59			25	400		25
60			25	200	75	25
61			25	750		25
62			25	400	25	25
63			25	200		25
64			75	1500		25
65			75	750		UNK
66			75	1500		
67			200	1500		
68			200	1500	25	
69			75	3500		
70			400	3500		
71			200	1500		25
72			200	3500		25
73			192	4168		10
74			160	2870		
75			250	1200		
76			200	1500		
77			200	1100		
78			350	1200		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			OCT	E. OCT		
START			OCT	M. OCT		
PEAK			NOV	L. OCT		
END			DEC	M. NOV		

REMARKS

* Escapements are determined at a counting fence at 700 yards.


Ellswich Lake
Kite Lake
800
1500
1200
Lucky
2300
3000
1516
200
539
1596
55
587
589
Hillier Island 588
616
Refuge Island
1519
1000
400
100
INLET
PIPESTEM
Bazett Island
1597
1626
660
412
Cataract Creek
Amedroz Lake
Lake
Cataract Lake
500
100
200
Shears Is
MAYNE BAY
Cataract Lake
400
800
1200
BROUGHTON PEAKS
2300
2400
300
500
300
600
900
900
100
IR8
Equis Beach
200
300
500
400
300
100
200
100
Crawford
Crawford
Sechart
Williams I
765
803
N
Cataract Creek
0
2
kilometres

NAME OF STREAM CATARACT CREEK

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows NW. from Cataract L. into Pipestem Inlet, Clayoquot Dist.

POSITION 49 125 SE

LENGTH 0.4 km WIDTH 5.5 m DRAINAGE 20.7 km²

COMPOSITION: BEDROCK 30% BOULDER 30% COARSE 20% FINE 10%

SILT & SAND UNCLASSIFIED 10%

PERCENT GRADIENT	
0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
>1.00	0 - 0.4 km

WETTED AREA 2200 m² SPAWNING AREA 660 m²

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Set of two impassable falls (1.8 m and 3 m) at 0.4 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to falls at 0.4 km
CHUM	- to falls at 0.4 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

- 1952. This stream is bouldery and has very little good spawning gravel.

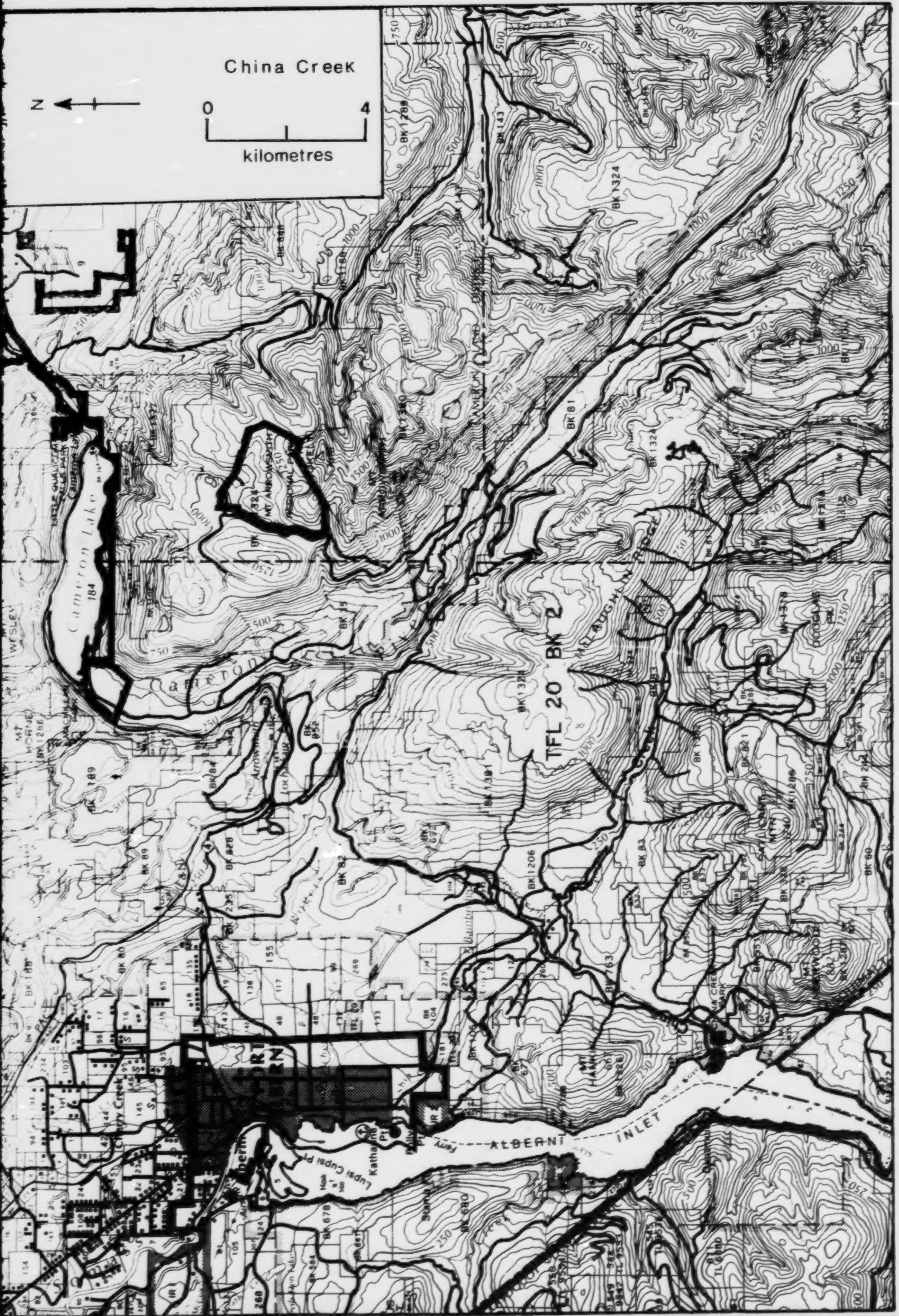
ESCAPEMENT RECORD FOR (Cataract Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48				147		
49				400		
50				400		
51				750		
52				200		
53				750		
54				200		
55				400		
56				200		
57				750		
58				1500		
59				750		
60				400		
61				200		
62				200		
63		2		75		
64				200		
65				200		
66				400		
67				400		
68				400		
69				400		
70				400		
71			25	75		
72			25	750		
73			25	75		
74			25	150		
75			25	300		
76			25	450		
77			20	550		
78			24	250		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			OCT	E. OCT		
START			OCT	M. OCT		
PEAK			NOV	L. OCT		
END			DEC	NOV		

REMARKS


China Creek
N
0
4
kilometres
Cameron Lake
TFL 20 BK 2
ALBERNI INLET
Lupsi Cupsi Pt
Katherine Pt
Mt Arrowsmith Regional Park
Douglas Pk
Wesley
Mt Horne

NAME OF STREAM CHINA CREEK

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows SW. into Alberni Inlet, Alberni Dist.

POSITION 49 124 SW

LENGTH 4.8 km WIDTH 11 m DRAINAGE 72.5 km²

COMPOSITION: BEDROCK 30% BOULDER 10% COARSE 25% FINE 15%

SILT & SAND 5% UNCLASSIFIED 15%

PERCENT GRADIENT	
0.00 - 0.25	0 - 0.4 km
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
>1.00	0.4 - 4.8 km

WETTED AREA 52800 m² SPAWNING AREA 21000 m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Passable 2.1 m cascades at 1.6 km.

Impassable falls and dam at 4.8 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- to falls at 4.8 km
COHO	- to falls at 4.8 km
CHUM	- to 0.4 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

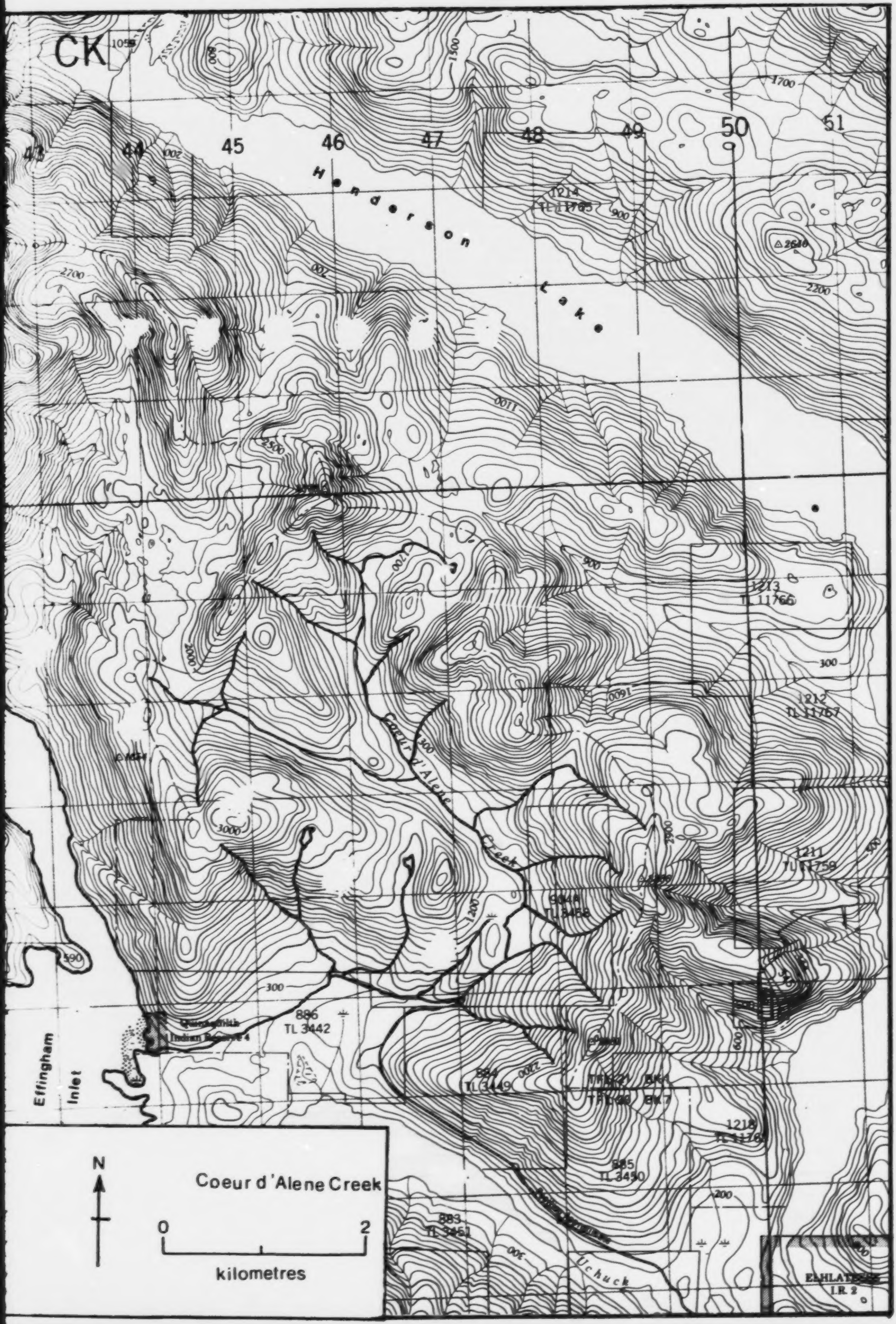
- The city of Alberni obtains its water supply from this watershed.
- 1976. Siltation of the lower portion of the stream was caused from the city gravel pit and a former hog fuel dump.
- 1976. China Creek Marina was constructed on the estuary.
- MacMillan - Bloedel booming grounds are adjacent to the estuary.

ESCAPEMENT RECORD FOR CHINA CREEK

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48			1500	1500		750
49			400	1500		750
50			750	1500		750
51			200	400		200
52			400	200		750
53			75	75		400
54			25	200		400
55			N/0	200		400
56			25	25		400
57			75	25		400
58			75	75		400
59			25	75		400
60			25	25		UNK
61		200	75	75		400
62			25	25		400
63		25	75	25		400
64		25	200	25		400
65		25	75	25		UNK
66		25	750	25		UNK
67		N/0	200	200		
68		75	750	200		UNK
69		N/0	75	25		UNK
70		N/0	75	N/0		400
71		N/0	75	N/0		200
72		N/0	200	25		200
73		25	75	75		
74		N/0	75	75		
75		10	150	N/0		
76		15	70	20		
77		15	50	N/0		
78		N/0	90	N/0		
79						
80						
81						
82						
83						
84						
85						

TIMING:						
ARRIVE		OCT	OCT	M. OCT		
START		L. OCT	L. OCT	L. OCT		
PEAK		L. OCT	NOV	NOV		
END		NOV	DEC	NOV		

REMARKS


CK
44
45
46
47
48
49
50
51
Henderson Lake
1214
TL 11765
1213
TL 11766
1212
TL 11767
1211
TL 11759
904A
TL 3468
886
TL 3442
884
TL 3449
885
TL 3450
883
TL 3461
1218
Coeur d'Alene Creek
Uchuck
Effingham Inlet
Indian Reserve 4
ELHLATEESE
I.R. 2
2700
2200
2000
3000
1700
1300
900
300
200
N
Coeur d'Alene Creek
0
2
kilometres

NAME OF STREAM COEUR D'ALENE CREEK

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows SE. and W. into Effingham Inlet, Clayoquot Dist.

POSITION 49 125 SE

LENGTH 1.2 km WIDTH 9.1 m DRAINAGE 18 km^2

COMPOSITION: BEDROCK 20% BOULDER 40% COARSE 10% FINE 10%

SILT & SAND 10% UNCLASSIFIED 10%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.2 km
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
>1.00	0.2 - 1.2 km

WETTED AREA 10900 m^2 SPAWNING AREA 2200 m^2

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Impassable 15.2 m falls at 1.2 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- to falls at 1.2 km
COHO	- to falls at 1.2 km
CHUM	- to falls at 1.2 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

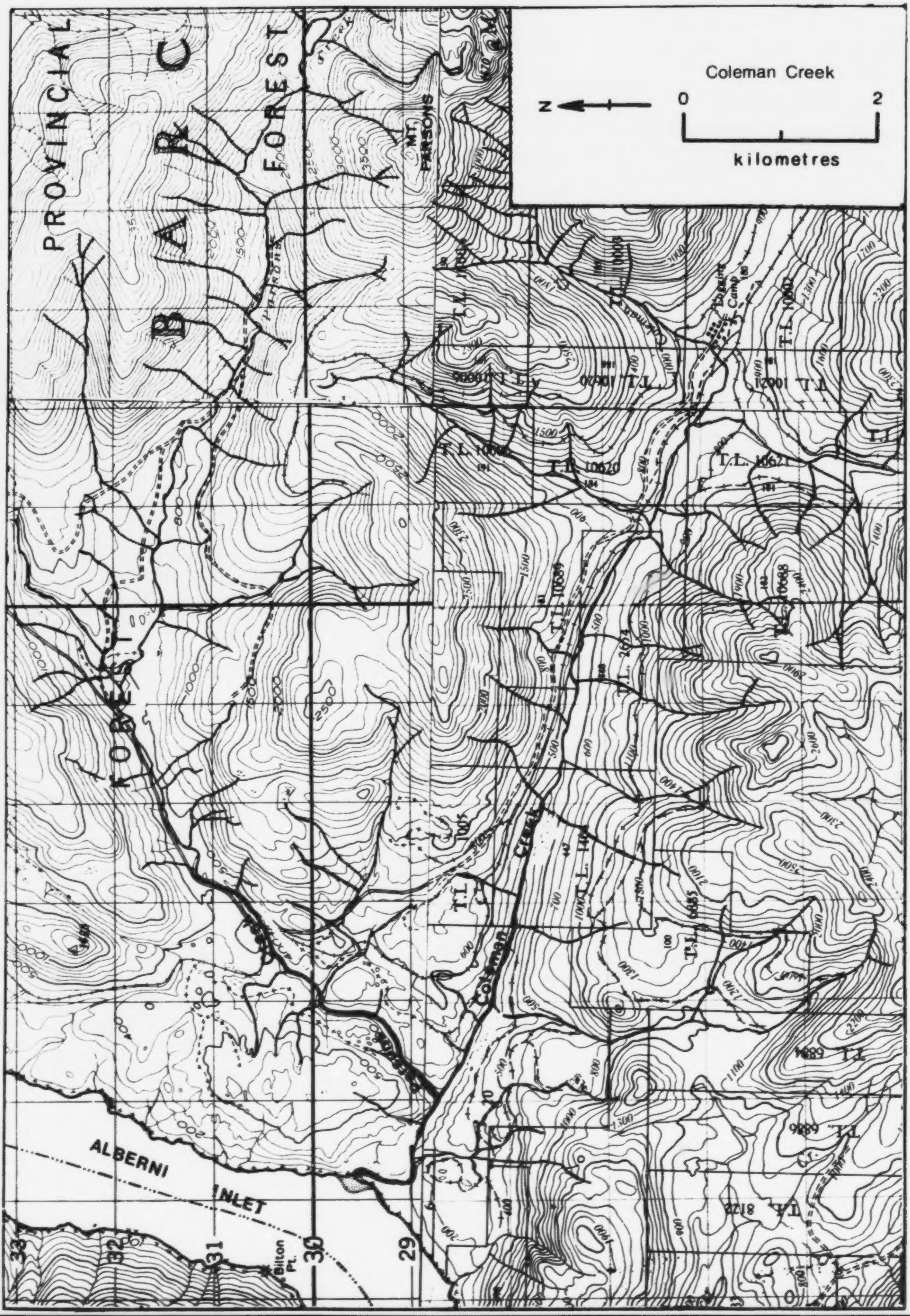
ESCAPEMENT RECORD FOR COEUR D'ALENE CREEK

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48				75		
49			25	400		
50			400	750		
51			750	200		
52			75	75		
53			25	75		
54			200	400		
55			75	75		
56			400	200		
57			75	400		
58		25	75	400		
59		25	75	750		
60		25	25	200		
61			200	75		
62			75	200		
63		2	25	25		
64		N/O	75	75		
65		N/O	25	75		
66		N/O	25	75		
67		N/O	200	750		
68		N/O	200	750		
69		N/O	75	750		
70		25	200	200		
71		25	25	75		
72		25	25	750		
73		25	200	400		
74		50	75	750		
75		25	75	150		
76			90	250		
77			85	200		
78		N/O	100	200		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE		OCT	OCT	OCT		
START		OCT	NOV	M. OCT		
PEAK		OCT	NOV	L. OCT		
END		NOV	DEC	L. NOV		

REMARKS


Coleman Creek
N
0
2
kilometres
PROVINCIAL
FOREST
MT. PARSONS
ALBERNI
INLET
Bilton Pt.
Coleman
33
32
31
30
29

NAME OF STREAM COLEMAN CREEK

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows NW. into Alberni Inlet, Barclay Dist.

POSITION 49 124 SW

LENGTH 9.7 km WIDTH 9.1 m DRAINAGE 51.8 km^2

COMPOSITION: BEDROCK 30% BOULDER 20% COARSE 15% FINE 10%

SILT & SAND 10% UNCLASSIFIED 15%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.4 km
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
>1.00	0.4 - 9.7

WETTED AREA 88000 m^2 SPAWNING AREA 22000 m^2

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Impassable falls on Parson's Creek tributary at 2.4 km from confluence with Coleman Creek.

Impassable 6.1 m falls at 9.7 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to falls at 9.7 km; in Parson's Creek
CHUM	- lower 1.5 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	- to 8 km

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

Parson's Creek has approximately 5 km of good spawning and rearing area above the falls.

GENERAL REMARKS

- This stream is subject to heavy freshets.

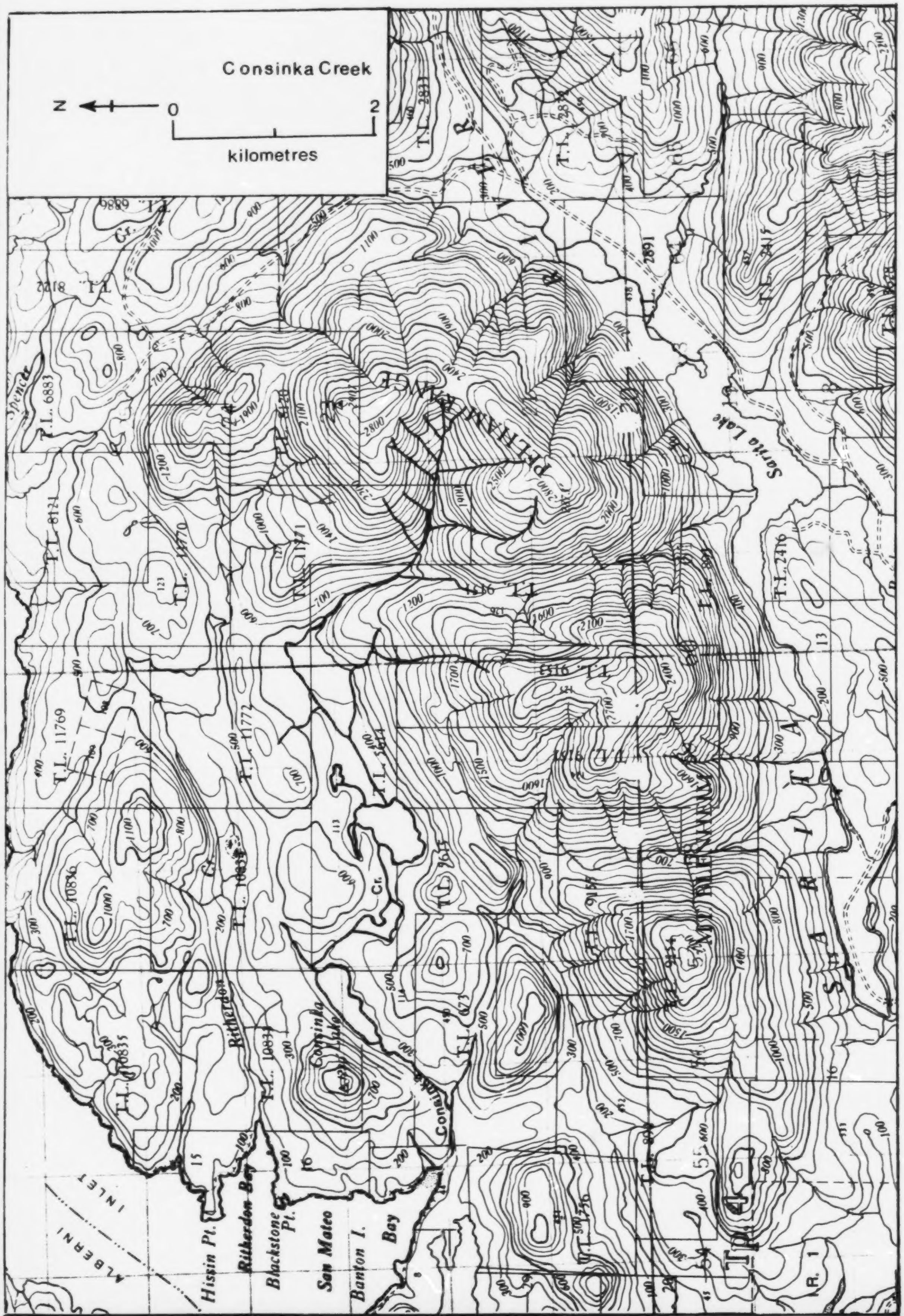
ESCAPEMENT RECORD FOR COLEMAN CREEK

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48			750	200		
49			200	200		
50			400	1500		
51			200	400		
52			25	25		
53			25	25		
54			25	25		
55			25	25		
56			25	25		
57			25	25		75
58			25	25		75
59			25	25		75
60			25	25		75
61			25	25		75
62			25	25		75
63			25	25		UNK
64			75	25		75
65			25	25		UNK
66			25	400		UNK
67			25	75		
68		25	200	400		UNK
69		N/0	75	75		UNK
70			200	200		200
71			25	25		200
72		N/0	75	1500		400
73			200	N/0		
74			25	N/0		
75			75	10		
76			45	40		
77			60	30		
78			150	N/0		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			OCT	OCT		
START			L. OCT	OCT		
PEAK			NOV	L. OCT		
END			DEC	NOV		

REMARKS


Consinka Creek
N
0
2
kilometres
PELHAM RANGE
Sarita Lake
SARITA RIVER
ALBERNI INLET
Hissin Pt.
Ritherdon Bay
Blackstone Pt.
San Mateo
Banton I.
Bay
Consinka Lake
Spencer
T.L. 6883
T.L. 8121
T.L. 11769
T.L. 11772
T.L. 2891
T.L. 2416
Tp. 4
R. 1

NAME OF STREAM CONSINKA CREEK (Wood Creek)

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows W. into San Mateo Bay, Barclay Dist.

POSITION 48 124 NW

LENGTH 0.4 km WIDTH 3.6 m DRAINAGE 10.4 km^2

COMPOSITION: BEDROCK 10% BOULDER 20% COARSE 20% FINE 20%

SILT & SAND 10% UNCLASSIFIED 20%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.2 km
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
>1.00	0.2 - 0.8 km

WETTED AREA 1440 m^2 SPAWNING AREA 580 m^2

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Impassable 3 m falls at 0.4 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to falls at 400 m
CHUM	- lower 180 - 275 m
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

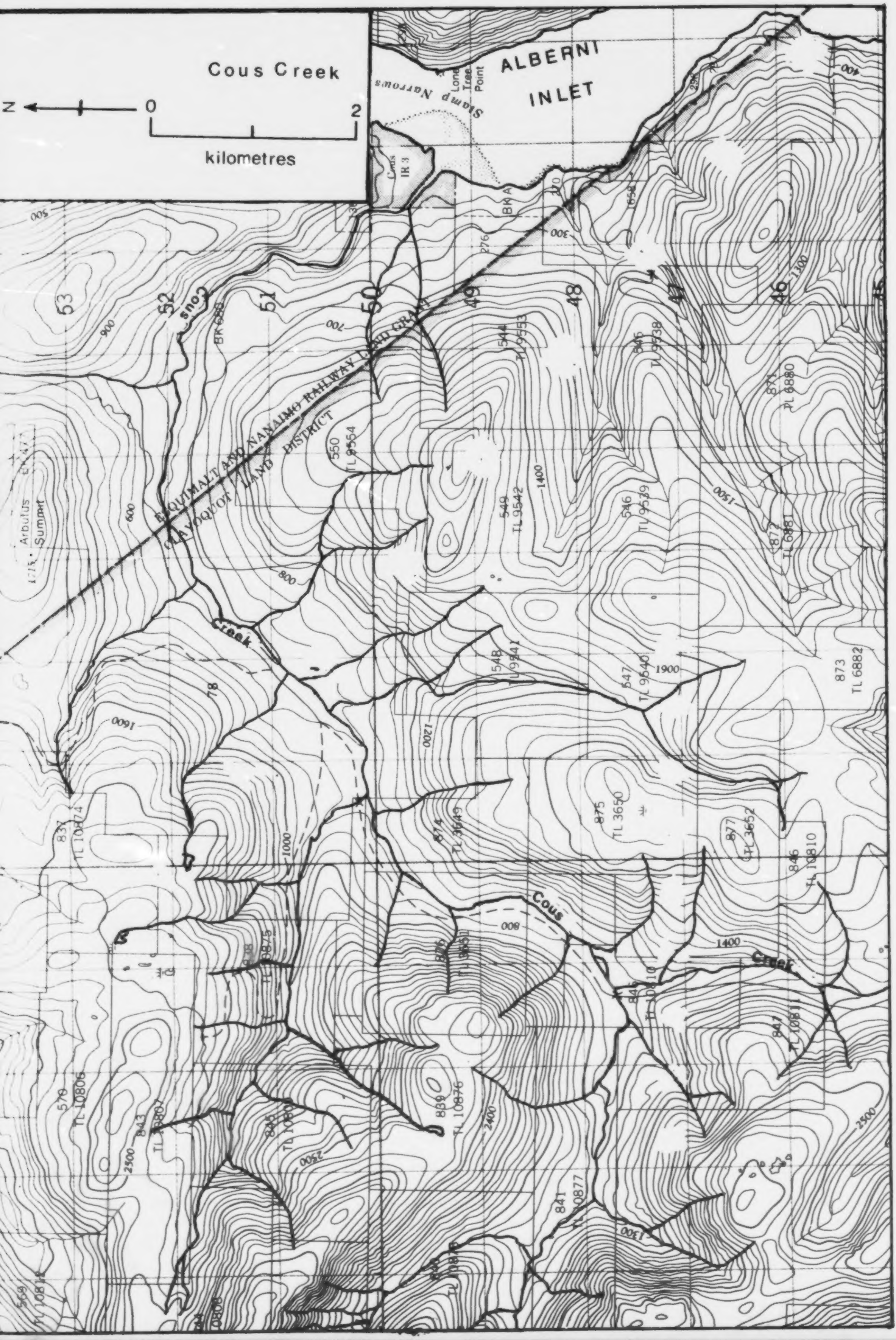
GENERAL REMARKS

ESCAPEMENT RECORD FOR CONSINKA CREEK (Wood Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48			400	750		75
49			400	400		75
50			400	1500		75
51			400	750		75
52			200	400		75
53			25	750		75
54			25	1500		25
55			25	750		25
56			25	400		25
57			25	200		25
58			25	200		25
59			25	750		25
60			25	200		25
61			25	200		25
62			25	200		25
63			N/O	200		25
64			25	75		N/O
65			25	200		25
66			25	400		UNK
67			25	200		
68			25	750		
69			25	400		
70			75	750		
71			25	400		
72			25	750		
73			200	500		
74			75	750		
75			40	400		
76			75	500		
77			120	900		
78			80	1000		
79						
80						
81						
82						
83						
84						
85						

TIMING:						
ARRIVE			OCT	M. OCT		
START			NOV	L. OCT		
PEAK			NOV	L. OCT		
END			DEC	M. NOV		

REMARKS


Cous Creek
N
0
2
kilometres
ALBERNI
INLET
Stamp Narrows
Lone Tree Point
Cous IR 3
ESQUIMALT AND NANAIMO RAILWAY LAND GRANT
CLAYOQUOT LAND DISTRICT
Arbutus Summit
Cous
Creek
Cous
Creek
53
52
51
50
49
48
47
46
45
BK 683
544 TL 9553
545 TL 9538
871 PL 6880
550 TL 9554
549 TL 9542
546 TL 9539
872 TL 6881
548 TL 9541
547 TL 9540
873 TL 6882
837 TL 10874
874 TL 3649
875 TL 3650
877 TL 3652
846 TL 10810
847 TL 10811
570 TL 10806
843 TL 10807
839 TL 10876
841 TL 10877
500
900
700
600
800
300
1300
1400
1500
1600
1900
1200
1000
800
1400
2400
2500
2500
1300

NAME OF STREAM COUS CREEK

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows SE. into Stamp Narrows, Alberni Inlet, Alberni Dist.

POSITION 49 124 SW

LENGTH 11.3 km WIDTH 12.2 m DRAINAGE 41.4 km^2

COMPOSITION: BEDROCK 50% BOULDER 5% COARSE 10% FINE 5%

SILT & SAND 5% UNCLASSIFIED 25%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.8 km
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
>1.00	0.8 - 11.3 km

WETTED AREA 138000 m^2 SPAWNING AREA 20700 m^2

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Passable cascades and canyon from 1.2 km to 6.4 km. (Impassable to chum)

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- to 11.3 km; mainly to 2.4 km
COHO	- to 11.3 km
CHUM	- below 1.2 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	- to 11.3 km

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

- This stream is subject to rapid water fluctuations. The watershed has been previously logged and at present a stand of second growth timber is becoming established.

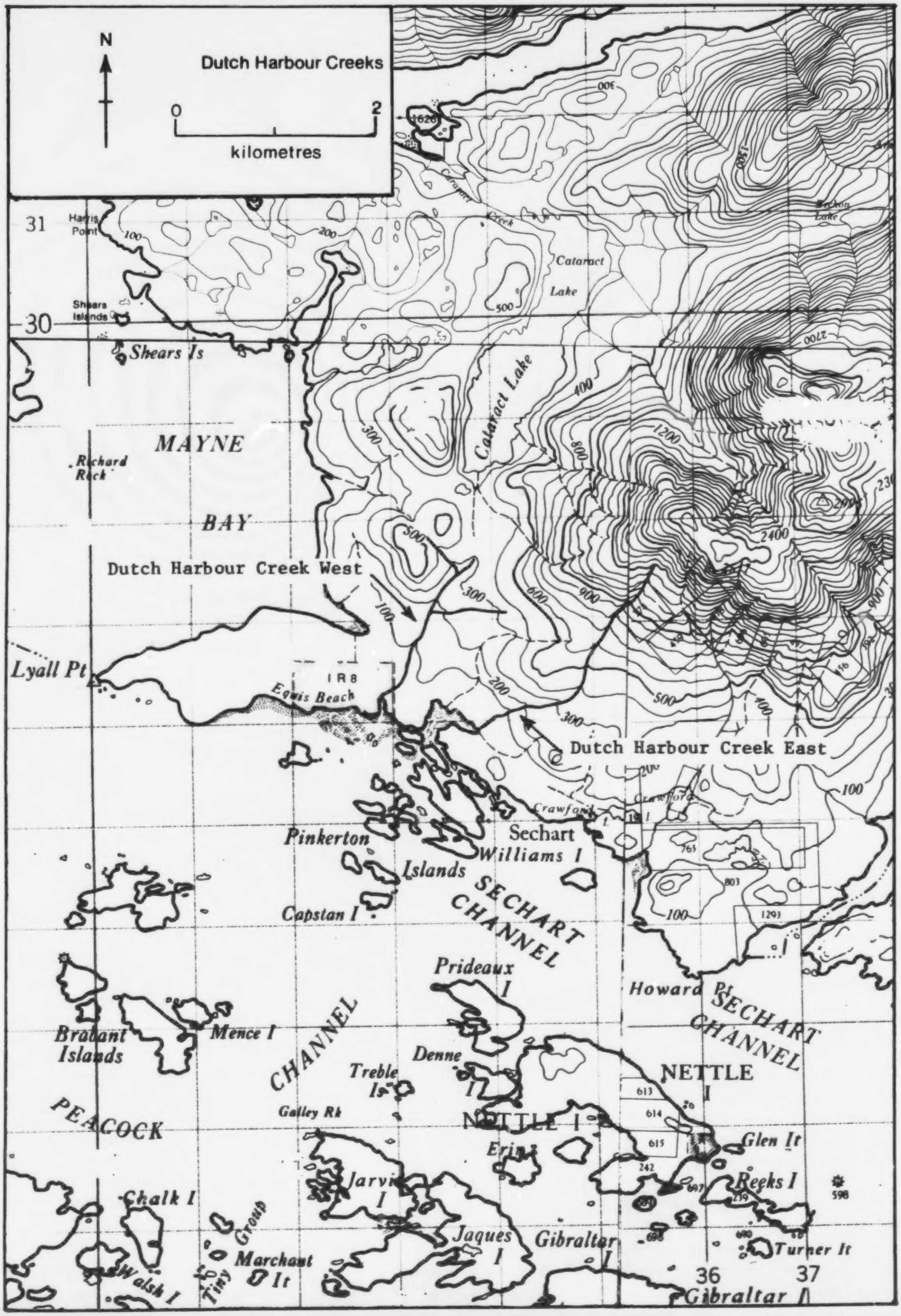
ESCAPEMENT RECORD FOR COUS CREEK

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48			400	1500		
49			75	1500		
50			750	1500		
51			400	1500		200
52			75	400		
53			75	200		
54			75	750		75
55			N/O	N/O		75
56			75	200		75
57			25	200		75
58			25	750		75
59			75	200		75
60			75	75		200
61			75	200		200
62			200	200		200
63			75	75		200
64		25	75	25		200
65		25	200	200		UNK
66		25	750	400		UNK
67		25	200	200		
68		N/O	400	400		UNK
69		25	400	3500		UNK
70		N/O	200	750		500
71		25	75	200		750
72		25	75	1500		750
73		25	200	750		750
74		25	75	350		UNK
75		25	75	400		UNK
76		15	85	550		UNK
77		20	90	380		
78		N/O	70	100		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE		OCT	OCT	E. OCT		
START		L. OCT	L. OCT	M. OCT		
PEAK		L. OCT	NOV	L. OCT		
END		NOV	DEC	NOV		

REMARKS


N
Dutch Harbour Creeks
0
2
kilometres
31
Harris Point
Shears Islands
30
Shears Is
MAYNE
BAY
Richard Rock
Cataract Creek
Cataract Lake
Cataract Lake
Dutch Harbour Creek West
Lyall Pt
IR8
Equis Beach
Dutch Harbour Creek East
Crawford
Sechart
Williams I
Pinkerton Islands
Capstan I
SECHART CHANNEL
Prideaux I
Howard Pt
SECHART CHANNEL
NETTLE I
Brabant Islands
Mence I
CHANNEL
Treble Is
Denne I
Galley Rk
PEACOCK
NETTLE I
Erin I
Glen It
Reeks I
Jarvis I
Chalk I
Tiny Group
Marchant It
Walsh I
Jaques I
Gibraltar I
Turner It
36
37
Gibraltar

NAME OF STREAM (Dutch Harbour Creek East)

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows SW. into Sechart Chan., N. of Broken Gp., Barclay Dist.

POSITION 48 125 NE

LENGTH 3.2 km WIDTH 4.6 m DRAINAGE 5.2 km²

COMPOSITION: BEDROCK 5% BOULDER 20% COARSE 40% FINE 20%

SILT & SAND 10% UNCLASSIFIED 5%

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	0 - 0.3 km
0.50 - 0.75	
0.75 - 1.00	0.3 - 0.8 km
>1.00	0.8 - 2.4 km

WETTED AREA 14700 m² SPAWNING AREA 8800 m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Impassable 3.7 m falls at 3.2 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to falls at 3.2 km
CHUM	- in lower 2.4 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

ESCAPEMENT RECORD FOR (Dutch Harbour Creek East)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48			750	7500		
49						
50						
51			750	7500		
52			75	3500		
53			75	3500		
54			75	7500		
55			75	1500		
56			25	3500		
57			25	3500		
58			75	7500		
59			75	3500		
60			25	750		
61			25	750		
62			25	400		
63			25	750		
64			25	400		
65			25	25		
66			75	750		
67			25	200		
68			75	400		
69			25	3500		
70			400	1500		
71			25	75		
72			25	1500		
73			200	200		
74			50	750		
75			25	200		
76			90	1050		
77			120	1500		
78			80	400		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			OCT	OCT		
START			NOV	E. OCT		
PEAK			NOV	L. OCT		
END			DEC	NOV		

REMARKS

NAME OF STREAM (Dutch Harbour Creek West)

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows SW. into Sechart Chan., N. of Broken Gp., Barclay Dist.

POSITION 48 125 NE

LENGTH 0.8 km WIDTH 7.3 m DRAINAGE 5.2 km^2

COMPOSITION: BEDROCK 5% BOULDER 10% COARSE 30% FINE 30%

SILT & SAND 15% UNCLASSIFIED 10%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.2 km
0.25 - 0.50	
0.50 - 0.75	0.2 - 0.8 km
0.75 - 1.00	
>1.00	

WETTED AREA 5800 m^2 SPAWNING AREA 3500 m^2

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Impassable 4.6 m falls at 0.8 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to falls at 0.8 km
CHUM	- to falls at 0.8 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

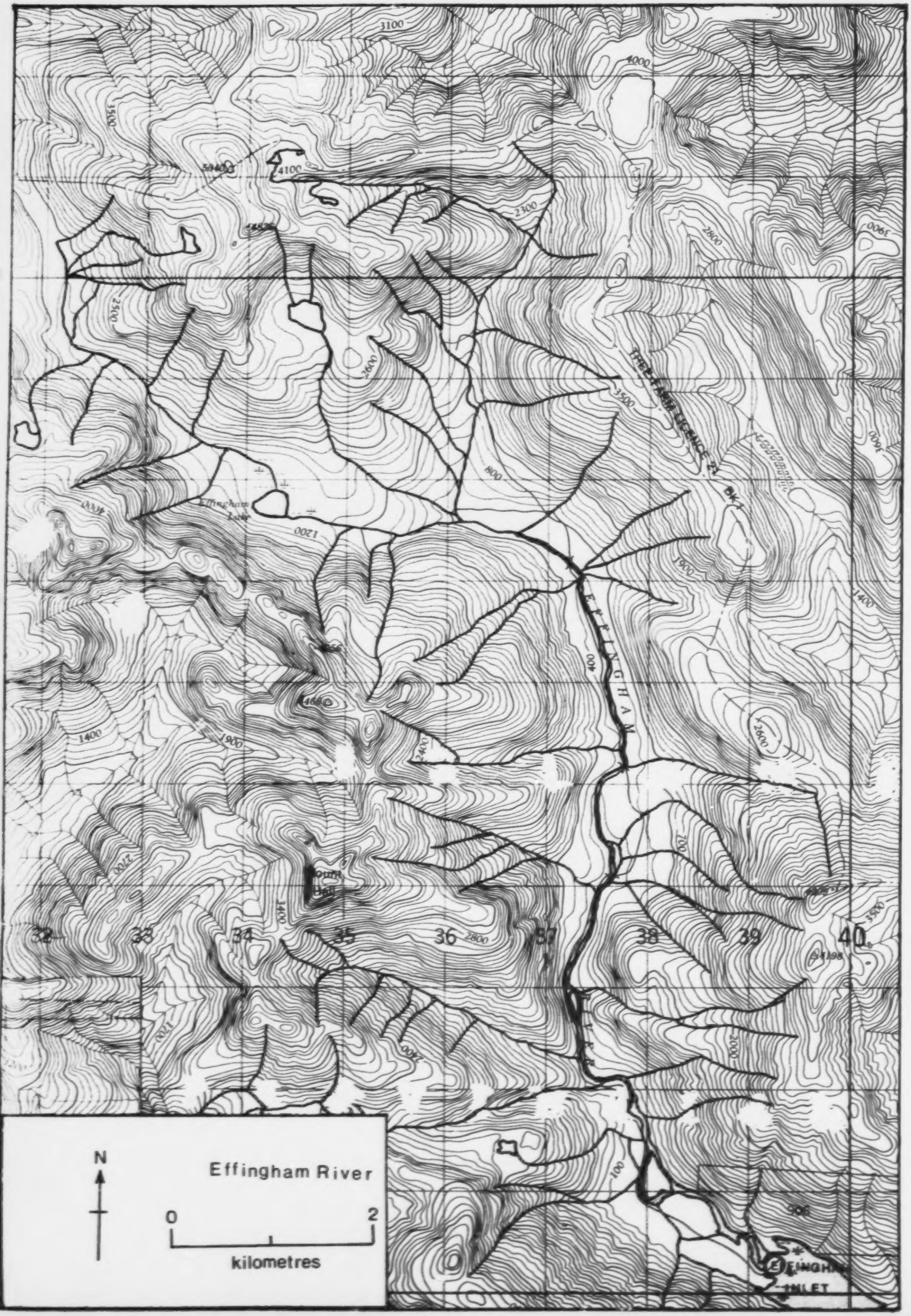
ESCAPEMENT RECORD FOR (Dutch Harbour Creek West)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
53			NO RECORDS PRIOR TO 1954			
54			25	750		
55			25	750		
56			25	750		
57			25	1500		
58			25	1500		
59			25	1500		
60			25	400		
61			25	200		
62			25	75		
63			25	75		
64			25	75		
65			25	75		
66			25	750		
67			25	200		
68			400	750		
69			25	750		
70			75	750		
71			25	75		
72			25	750		
73			25	400		
74			25	400		
75			25	200		
76			35	800		
77			30	875		
78			45	150		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			M. OCT	E. OCT		
START			L. OCT	M. OCT		
PEAK			NOV	L. OCT		
END			DEC	NOV		

REMARKS


3100
4000
3500
4100
2300
2800
3900
2500
2600
3500
800
Effingham Lake
1200
4000
TREE FARM LICENCE 21 BK 1
1900
1400
EFFINGHAM
400
2600
2400
1400
1900
Mount Hall
3400
32
33
34
35
36
2800
37
38
39
40
200
2000
100
900
EFFINGHAM INLET
N
Effingham River
0
2
kilometres

NAME OF STREAM EFFINGHAM RIVER

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows SE. into N. end of Effingham Inlet, Clayoquot Dist.

POSITION 49 125 SE

LENGTH 7.2 km WIDTH 9.1 m DRAINAGE 38.9 km^2

COMPOSITION: BEDROCK 20% BOULDER 30% COARSE 30% FINE 10%

SILT & SAND 5% UNCLASSIFIED 5%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.3 km
0.25 - 0.50	0.3 - 1.2 km
0.50 - 0.75	
0.75 - 1.00	1.2 - 2.4 km
>1.00	2.4 - 7.2 km

WETTED AREA 65500 m^2 SPAWNING AREA 26000 m^2

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Passable cascades and canyon at 4.0 km.

SPAWNING DISTRIBUTION

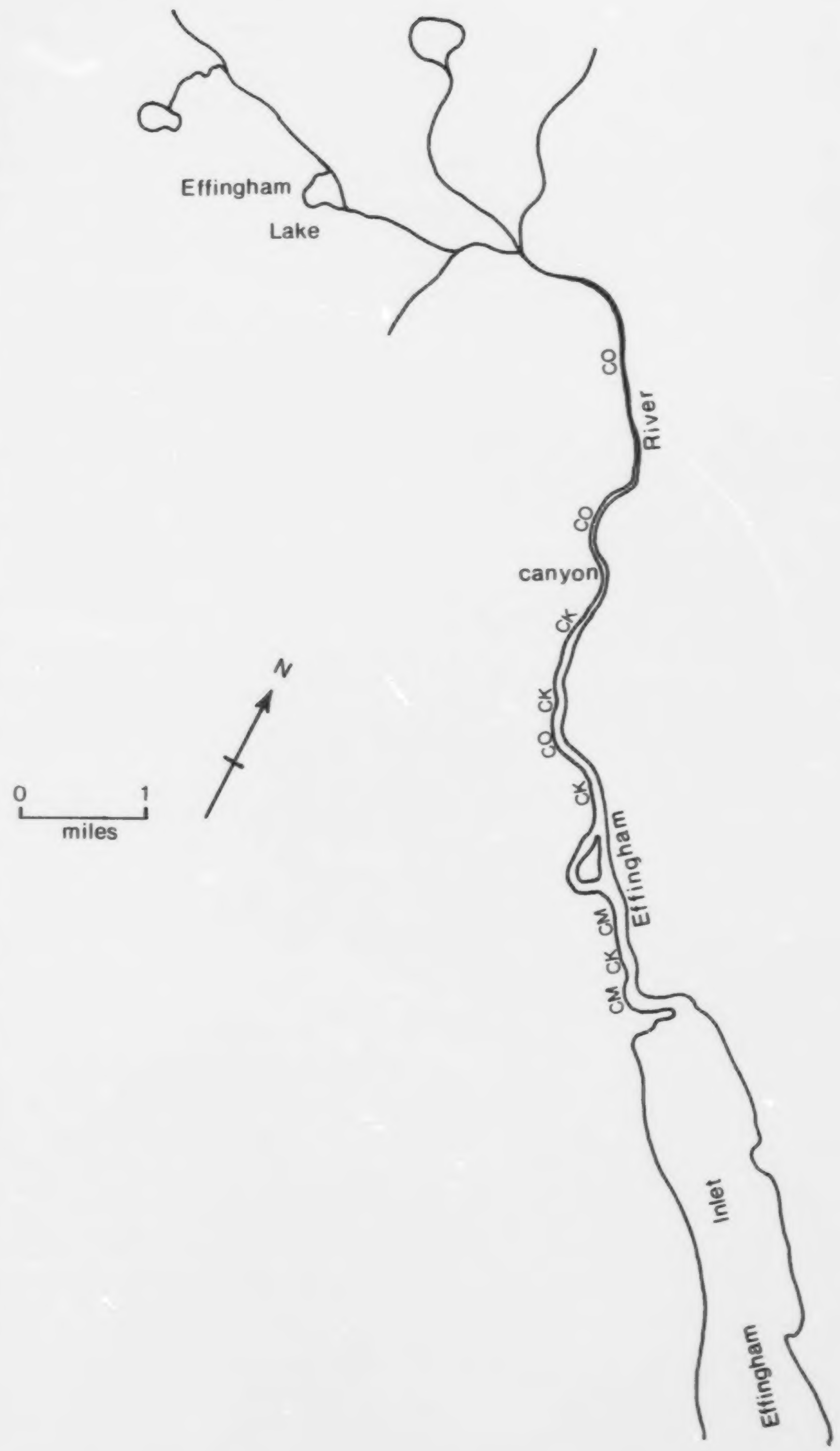
SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- to canyon at 4 km
COHO	- throughout
CHUM	- to 2.5 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	- throughout

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

- 1971. Logging operations have stopped at present and a good regeneration of forest cover has been established.

Sketch of Effingham River Spawning Grounds (1969)


Effingham
Lake
CO
River
CO
canyon
CK
CK
CO
CK
CM
CK
CM
Effingham
N
0
1
miles
Inlet
Effingham

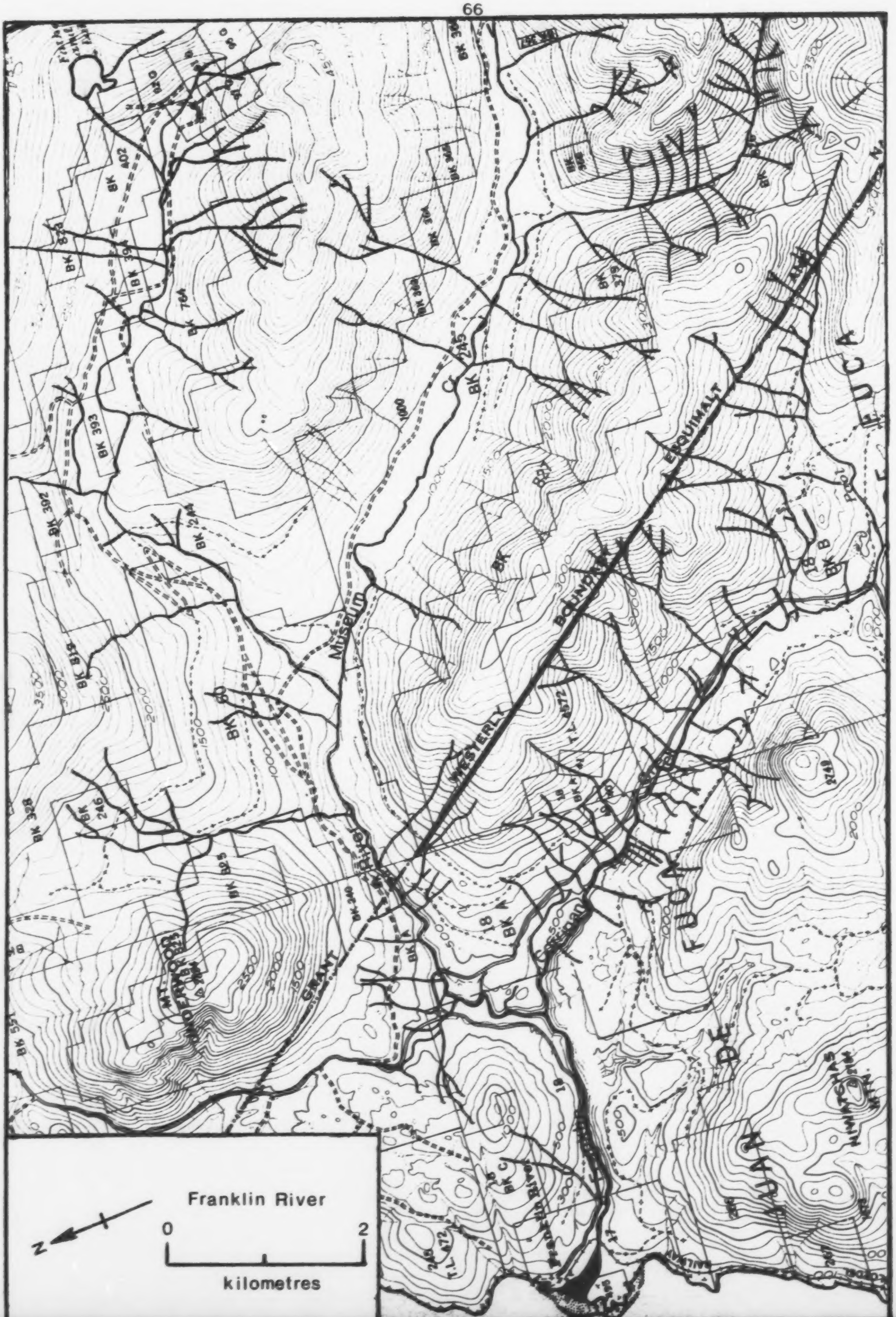
ESCAPEMENT RECORD FOR EFFINGHAM RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48			200	75		
49		25		1500		
50		75		7500		
51			1500	1500		
52	25	25	750	750		
53		25	400	1500		
54		N/O	200	7500		
55		25	200	3500		
56	N/O	25	200	3500		
57		25	400	7500		
58		25	400	7500	75	
59		N/O	400	3500		N/O
60		25	400	3500		
61		25	750	1500		
62		25	400	750		N/O
63		25	400	750		N/O
64		25	1500	3500		25
65		25	3500	1500		UNK
66		25	3500	7500		UNK
67		25	1500	7500		
68		25	750	15000		UNK
69		N/O	400	3500		UNK
70		N/O	750	9000		200
71		25	750	200		75
72		25	750	15000		75
73		50	1500	7500		75
74		40	750	8000	150	UNK
75		N/O	750	4000	100	UNK
76		N/O	700	8500	250	
77			1700	3500		
78			2100	5000		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE		L. SEP	SEP	OCT	SEP	
START		L. OCT	OCT	M. OCT	L. SEP	
PEAK		L. OCT	NOV	L. OCT	E. OCT	
END		NOV	DEC	NOV	OCT	

REMARKS


Franklin River
0
2
kilometres
N
ESQUIMALT
WESTERLY
BOUNDARY
GRANT
JUAN
DE
FUCA
MT. UNDERWOOD
HUMITSIAS MTN.
Museum
River
Pool
BK 393
BK 392
BK 328
BK 246
BK 402
BK 784
BK 245
18 BK A
18 BK B
18 BK C
T.L. 472
T.L. 4572

NAME OF STREAM FRANKLIN RIVER

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows W. into Sproat Narrows, Alberni Inlet, Barclay Dist.

POSITION 49 124 SW

LENGTH 2.8 km WIDTH m DRAINAGE 77.7 km^2

COMPOSITION: BEDROCK 25% BOULDER 25% COARSE 30% FINE 10%

SILT & SAND UNCLASSIFIED 10%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.3 km
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
>1.00	0.3 - 2.8 km

WETTED AREA m^2 SPAWNING AREA m^2

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Impassable 2.1 m and 3.7 m falls at 2.8 km.

Impassable falls at 0.5 km on Corrigan Creek.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- to falls at 2.8 km; mainly from 1.5 km to 2.8 km
COHO	- to falls at 2.8 km
CHUM	- lower 1.5 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	- to falls at 2.8 km

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

Approximately 3 km of good coho habitat exists above Corrigan Creek falls.

GENERAL REMARKS

- 1978. Logging in the watershed has had adverse effects on the stream. Most of the spawning gravel has been washed out into the estuary by freshets.

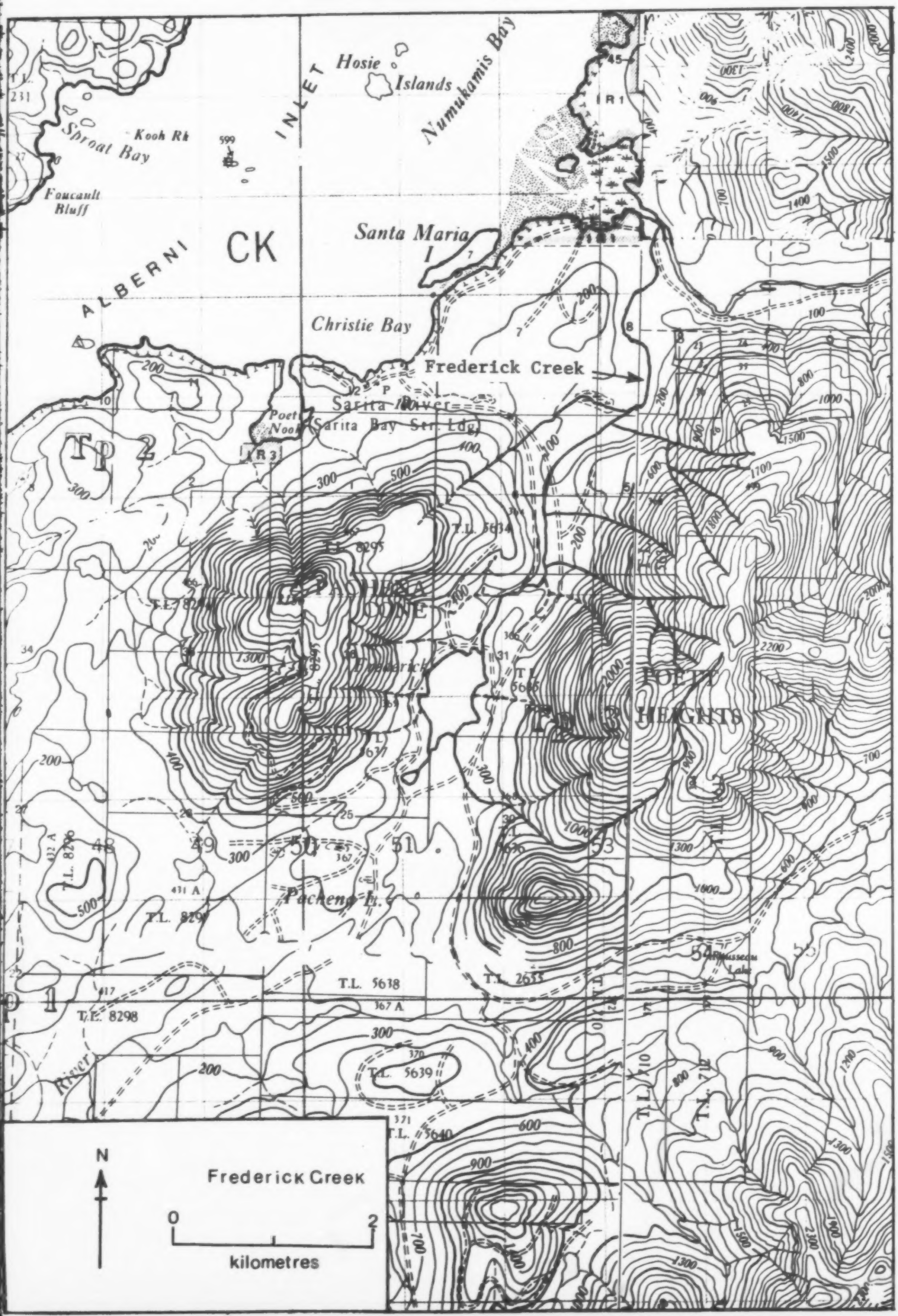
ESCAPEMENT RECORD FOR FRANKLIN RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48			750	200		200
49			750	200		75
50			400	1500		75
51			400	200		200
52			750	400		200
53			200	200		400
54			25	200		400
55			200	75		75
56		25	25	200		75
57		25	75	75		400
58		25	75	200		400
59		N/0	200	25		400
60		N/0	25	25		200
61		25	25	25	25	400
62		25	25	75	N/0	400
63		N/0	25	25		200
64			25	400		200
65			75	200		200
66			400	1500		UNK
67			400	750		
68		25	400	750		UNK
69		N/0	75	75		UNK
70		25	200	75		75
71		25	25	25		75
72		25	75	200		25
73		75	200	75		75
74		40	150	150	30	UNK
75		40	75	75	20	UNK
76		90	125	250	80	
77		50	100	100	N/0	
78		N/0	100	N/0	N/0	
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE		OCT	OCT	OCT	SEP	
START		OCT	L. OCT	L. OCT	SEP	
PEAK		NOV	L. NOV	NOV	SEP	
END		L. NOV	L. DEC	L. NOV	OCT	

REMARKS


Hosie
Islands
Numukamis Bay
INLET
ALBERNI
Sproat Bay
Kooh Rk
Foucault
Bluff
CK
Santa Maria
I
Christie Bay
IR 1
Frederick Creek
Sarita River
Poet
Nook
Sarita Bay Str. Ldg.
IR 3
Tp 2
T.L. 5634
T.L. 8295
T.L. 8297
PACHENA
CONE
Frederick
T.L. 5636
POETT
Tp 3
HEIGHTS
T.L. 5637
48
49
50
51
53
54
Pachena L.
T.L. 8296
T.L. 8299
T.L. 2633
T.L. 5638
Lake
Tp 1
T.L. 8298
River
T.L. 5639
T.L. 5640
T.L. 710
T.L. 712
N
Frederick Creek
0
2
kilometres

NAME OF STREAM (Frederick Creek)

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows N. into mouth of Sarita R., Numukamis Bay, Barclay Dist.

POSITION 48 125 NE

LENGTH 4 km WIDTH 6 m DRAINAGE 10.4 km^2

COMPOSITION: BEDROCK 20% BOULDER 20% COARSE 20% FINE 20%

SILT & SAND 10% UNCLASSIFIED 10%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.8 km
0.25 - 0.50	
0.50 - 0.75	0.8 km - 1.2 km
0.75 - 1.00	
>1.00	1.2 km - 4 km

WETTED AREA 24000 m^2 SPAWNING AREA 9600 m^2

DISCHARGE (m^3/s)

TEMPERATURE (°C) 13.3 (mean temp. for August 1971)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Impassable 3 m and 7.6 m falls at 4 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to falls at 4 km
CHUM	- to 3 km; heaviest above 2.5 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

- 1974. The early part of this stream's chum run appears to have spawned in the Sarita River due to low water conditions.
- This stream drains Frederick Lake located at 6.4 km.

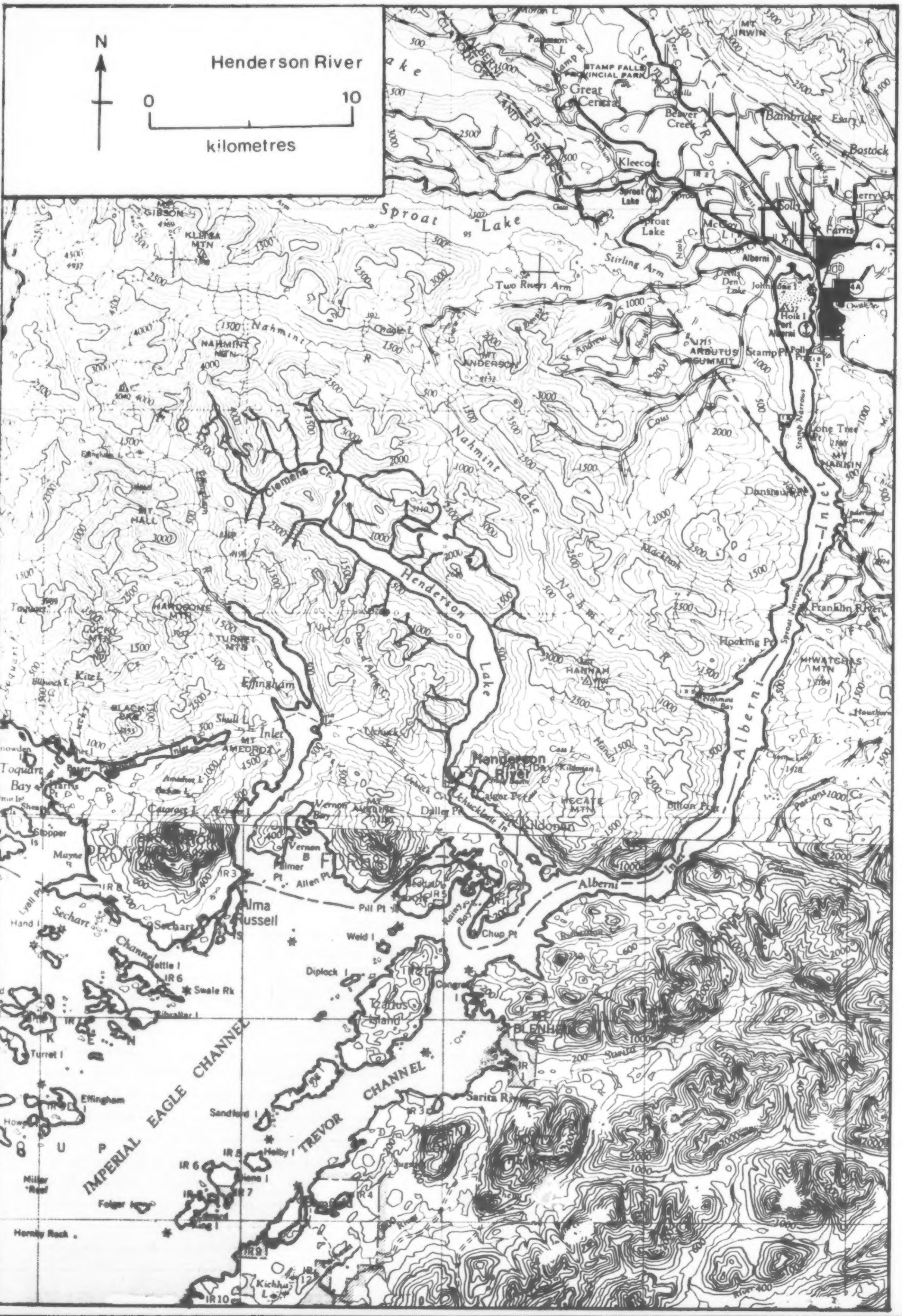
ESCAPEMENT RECORD FOR (Frederick Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48			200	400		
49			200	750		
50			400	1500		
51			200	200		
52			750	200		
53			200	200		
54			200	400		
55			75	400		
56			75	25		
57			200	200		
58			75	200		
59			75	200		
60			25	25		
61			200	200		
62			75	75		
63			25	25		
64			200	25		
65			75	200		
66			75	200		
67			200	3500		
68			200	3500		
69			25	3500		
70			200	400		
71			75	750		
72			25	750		
73			200	1500		
74			150	1000		
75			75	750		
76			70	2500		
77			90	2500		
78			120	10800		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			L. OCT	M. OCT		
START			NOV	L. OCT		
PEAK			L. NOV	M. NOV		
END			DEC	L. NOV		

REMARKS


N
Henderson River
0
10
kilometres
Sproat Lake
Great Central
STAMP FALLS PROVINCIAL PARK
Beaver Creek
Bainbridge
Bostock
Kleecoot
Sproat Lake
Alberni
Port Alberni
Stirling Arm
Two Rivers Arm
MT GIBSON
KLITSA MTN
NAHMINT MTN
MT ANDERSON
ARBUTUS SUMMIT
Stamp Pt
Lone Tree
MT NAHMINT
Dunsmuir
Nahmint Lake
Nahmint R
Clemens Cr
MT HALL
Henderson Lake
HAWGOOD MTN
LUCKY MTN
TURRET MTN
Effingham
Inlet
MT HANNAH
Franklin River
Hocking Pt
HIWATCHAS MTN
Nahmint Bay
Alberni Inlet
Sproat Narrows
Uchuck
Henderson River
HECATE MTN
Kildonan
Dallas Pt
Uchucklesit In
Vernon Bay
Palmer Pt
Allen Pt
Pill Pt
Alma Russell Is
Sechart
Sechart Channel
Chup Pt
Weld I
Diplock I
Tzartus Island
Nettle I
Swale Rk
Gibraltar I
Turret I
Effingham I
IMPERIAL EAGLE CHANNEL
TREVOR CHANNEL
Sandford I
Helby I
Folger Island
Hornby Rock
Miller Reef
Sarita River
BLENHEIM
Toquart Bay
Stopper Is
Mayne
Lyall Pt
Hand I
Kichha Lake
IR 10

NAME OF STREAM (Henderson River, Anderson River)

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows SE. into Uchucklesit Inlet, NE. of Barkley Sd.,

Clayoquot Dist. POSITION 49 125 SE

LENGTH 1 km WIDTH 36.6 m DRAINAGE 142.5 km^2

COMPOSITION: BEDROCK 20% BOULDER 30% COARSE 25% FINE 20%

SILT & SAND 5% UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
>1.00	

WETTED AREA 36600 m^2 SPAWNING AREA 16500 m^2

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	- in Henderson Lake and Clemens Creek
CHINOOK	- lower reaches
COHO	- throughout
CHUM	- lower reaches of Henderson River and Clemens Creek
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

Henderson Lake: length = 16.9 km; width = 1.4 km; spawning area = 29300 m^2

Clemens Creek: length = 5.6 km; width = 13.7 m; wetted area = 76900 m^2 spawning area = 46000 m^2; Composition = 5% bedrock, 15% boulder, 40% coarse, 20% fine and 20% unclassified

- There has been active logging in this watershed since 1973.
- 1976. Artificial lake fertilization was started this year by the Fisheries Research Board to increase the sockeye population.

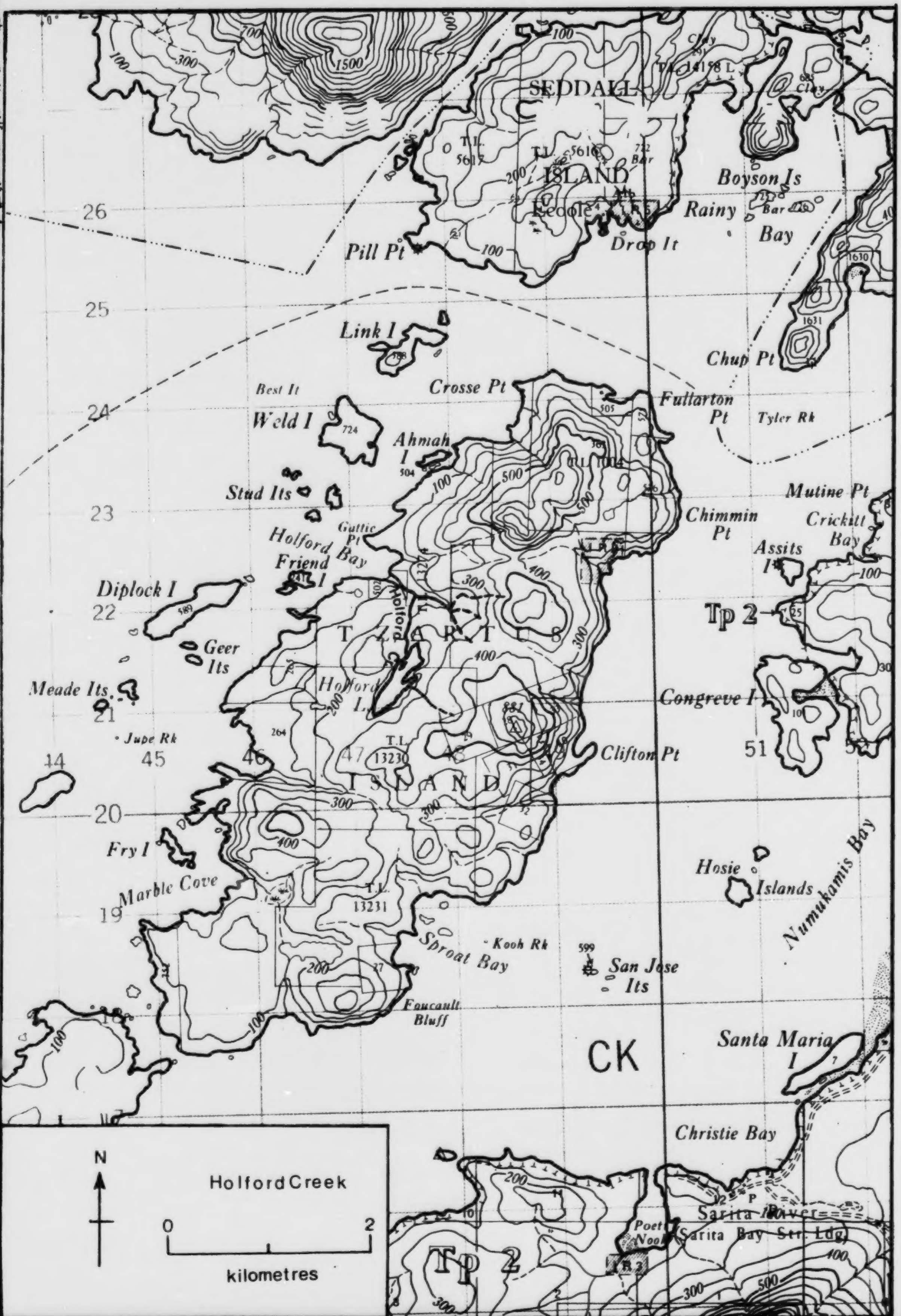
ESCAPEMENT RECORD FOR (Henderson River, Anderson River)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48	35000	1500	1500	3500		400
49	15000	1500	1500	3500		400
50	15000	1500	3500	3500		400
51	15000	750	1500	1500		400
52	15000	750	7500	1500		400
53	15000	1500	3500	35000		400
54	35000	400	750	7500		400
55	15000	750	3500	1500		400
56	7500	750	3500	3500		400
57	7500	750	750	7500		400
58	15000	1500	1500	7500		400
59	15000	750	1500	3500		400
60	7500	400	750	3500		400
61	15000	1500	3500	3500		400
62	35000	750	1500	1500		400
63	15000	400	1500	750		400
64	35000	400	3500	3500		400
65	15000	750	1500	3500		UNK
66	75000	750	1500	3500		UNK
67	75000	400	750	3500		
68	35000	400	1500	7500		UNK
69	15000	200	400	3500		UNK
70	9000	200	400	3500		
71	7500	750	400	750		UNK
72	3500	400	200	3500	400	
73	40000	250	500	750		
74	6000	150	400	3500	N/O	
75	10000	400	400	750		
76	3500	320	250	4200		
77	4800	210	325	850		
78	7000	150	500	1000	90	
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE	SEP	E. OCT	OCT	OCT		
START	OCT	OCT	L. OCT	OCT		
PEAK	L. OCT	L. OCT	L. NOV	NOV		
END	NOV	NOV	DEC	NOV		

REMARKS


SEDDALL ISLAND
T.L. 5617
T.L. 5616
Kecole
Boyson Is
Rainy Bay
Drop It
Pill Pt
Link I
Chup Pt
Best It
Weld I
Crosse Pt
Fullarton Pt
Tyler Rk
Ahmah I
Stud Its
Mutine Pt
Chimmin Pt
Crickitt Bay
Gattie Pt
Holford Bay
Friend I
Assits I
Diplock I
Tp 2
Geer Its
T Z A R T U S
Holford L
Meade Its
Congreve I
Jupe Rk
T.L. 13230
Clifton Pt
I S L A N D
Fry I
Hosie Islands
Numukamis Bay
Marble Cove
T.L. 13231
Kooh Rk
Sproat Bay
San Jose Its
Foucault Bluff
CK
Santa Maria I
Christie Bay
Poett Nook
Sarita River
(Sarita Bay Str. Ldg)
Tp 2
26
25
24
23
22
21
20
19
44
45
46
47
51
N
Holford Creek
0
2
kilometres

NAME OF STREAM HOLFORD CREEK

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows NW. into Holford Bay, Tzartus I., Barclay Dist.

POSITION 48 125 NE

LENGTH 0.4 km WIDTH 3 m DRAINAGE 3.9 km²

COMPOSITION: BEDROCK 10% BOULDER 20% COARSE 50% FINE 10%

SILT & SAND 10% UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	0 - 0.2 km
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
>1.00	0.2 - 0.4 km

WETTED AREA 1200 m² SPAWNING AREA 700 m²

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Impassable falls at 0.4 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to falls at 0.4 km
CHUM	- to falls at 0.4 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

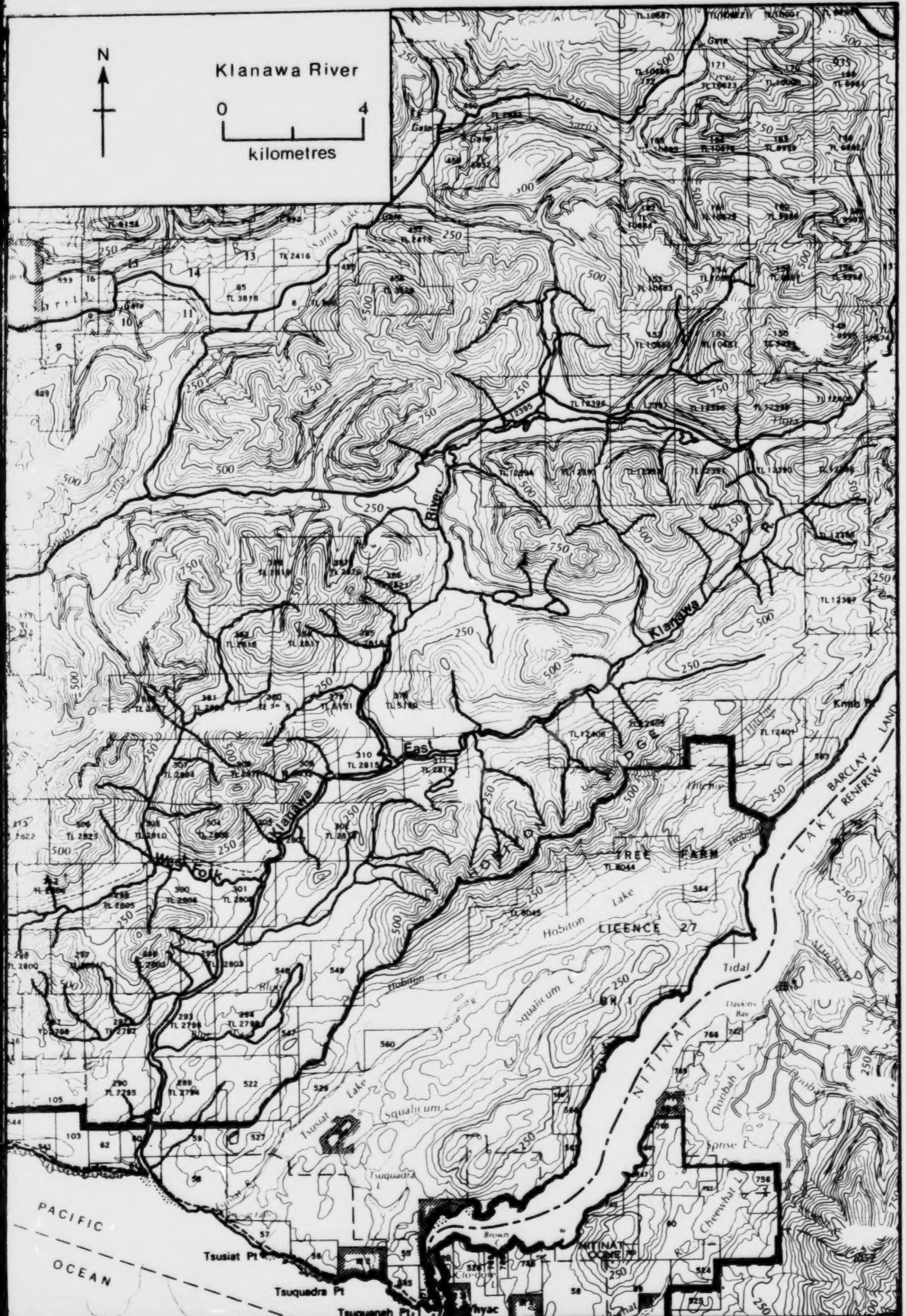
ESCAPEMENT RECORD FOR HOLFORD CREEK

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48				400		
49				400		
50				1500		
51				750		
52				200		
53				750		
54				1500		
55				1500		
56				400		
57				750		
58				750		
59				400		
60				750		
61				750		
62				200		
63				400		
64				750		
65				750		
66				750		
67				1500		
68				750		
69			75	3500		
70			75	400		
71			25	200		
72			25	750		
73			75	1000		
74			25	750		
75			25	900		
76			40	800		
77			20	1150		
78			25	2200		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			NOV	E. OCT		
START			NOV	M. OCT		
PEAK			E. DEC	E. NOV		
END			DEC	L. NOV		

REMARKS


N
Klanawa River
0
4
kilometres
Klanawa
River
East
West Fork
Hobiton Lake
Hobiton Cr
Squalicum L
Tsusiat Lake
Tsuquadra L
TREE FARM
LICENCE 27
Tidal
NITINAT LAKE
BARCLAY
RENFREW
LAND
Knob Pt
Doobah L
Sprise L
Cheewhat L
NITINAT CONE
PACIFIC
OCEAN
Tsusiat Pt
Tsuquadra Pt
Tsuquanah Pt
Whyac
Santa Lake
250
500
750

NAME OF STREAM KLANAWA RIVER

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows SW. and S. into Pacific Ocean, W. of Nitinat L., Barclay Dist.

POSITION 48 124 NW

LENGTH 22.5 km WIDTH 15.2 m DRAINAGE 168.4 km^2

COMPOSITION: BEDROCK 15% BOULDER 20% COARSE 20% FINE 30%

SILT & SAND 10% UNCLASSIFIED 5%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.5 km
0.25 - 0.50	0.5 - 4.8 km
0.50 - 0.75	
0.75 - 1.00	4.8 - 16 km
>1.00	16 - 22.5 km

WETTED AREA 342000 m^2 SPAWNING AREA 171000 m^2

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Impassable falls on east fork at 22.5 km from mouth of river.

Impassable 9 m falls on the north fork at 6.4 km from the mouth of river.

Passable slide on west fork at 9.6 km from the mouth of river.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- east fork and west fork
COHO	- to 22.5 km
CHUM	- lower reaches up to 11 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	- throughout

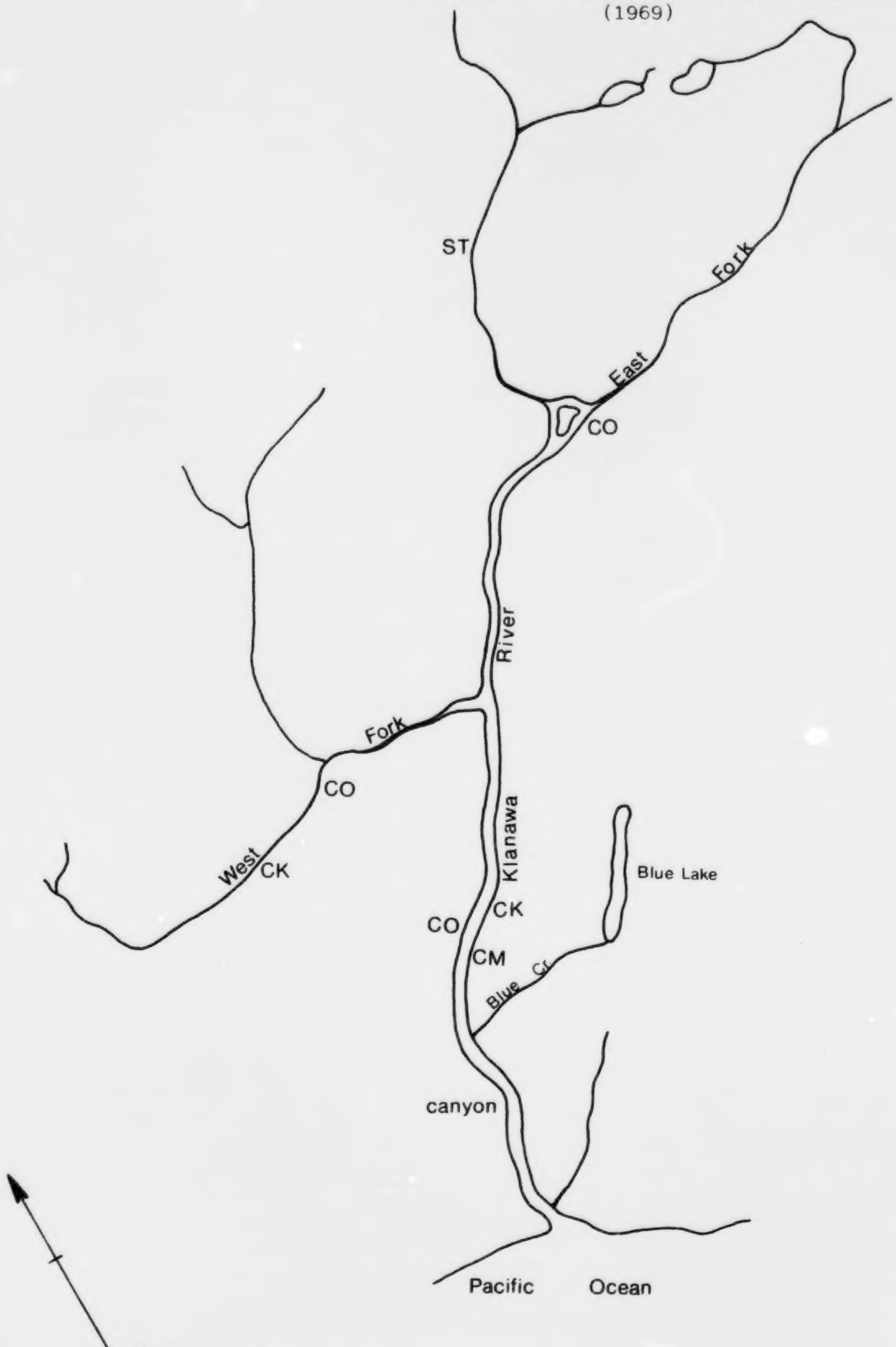
POTENTIAL OF INACCESSIBLE PORTION OF STREAM

There is approximately 5 km of good rearing area above the obstruction on the north fork.

GENERAL REMARKS

- 1968. This is a good salmon stream, however, logging is affecting run-off and erosion.
- 1974. Logging operations commenced in the upper watershed.
- Road construction in the watershed is creating heavy silting through slides and washouts.

Sketch of Klanawa River Spawning Grounds
(1969)


ST
Fork
East
CO
River
Fork
CO
West
CK
Klanawa
Blue Lake
CO
CK
CM
Blue Cr
canyon
Pacific
Ocean
0
1
miles

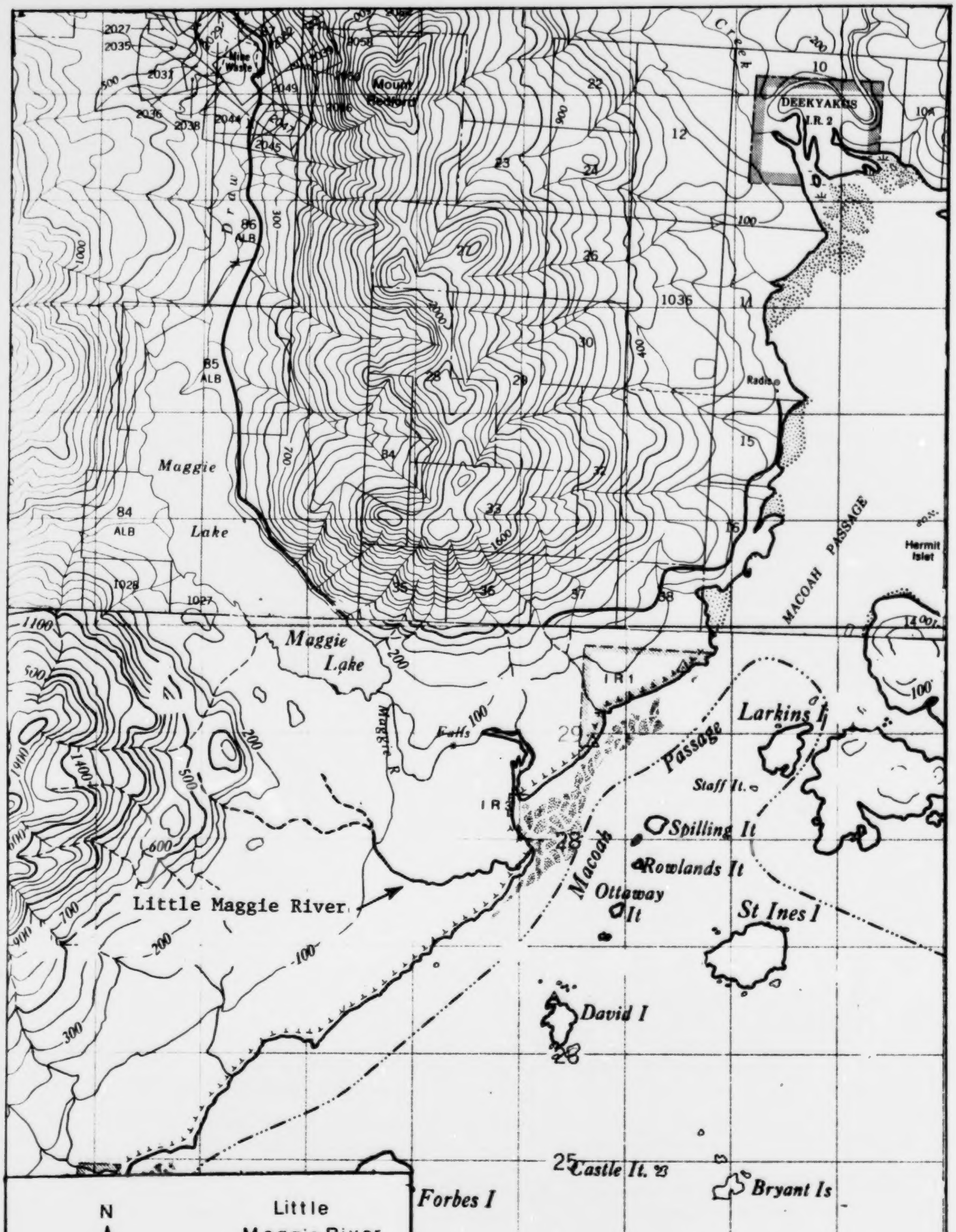
ESCAPEMENT RECORD FOR KLANAWA RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48			750	75		
49			75	400		
50						
51						
52						
53		75	400	750		UNK
54			400	3500	N/O	UNK
55		NO FISH SEEN DUE TO EXTREME HIGH WATER				
56				1500		
57		N/O	N/O	N/O	N/O	N/O
58		N/O	N/O	N/O	N/O	N/O
59		UNK	UNK	UNK		UNK
60		N/O	N/O	200	N/O	
61		N/O	N/O	750		N/O
62		N/O		400		N/O
63		N/O	400	N/O		UNK
64		N/O	750	400		200
65			400	N/O		
66			750	400		UNK
67			200	400		
68			750	400		UNK
69		N/O	400	N/O		UNK
70			200	N/O		UNK
71			25	N/O		UNK
72			75	N/O		UNK
73			200	N/O		UNK
74			200	N/O		
75		75	200	150		UNK
76			125	45		
77			195	N/O		40
78		30	250	N/O		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			L. OCT			
START			NOV			
PEAK			L. NOV			
END			L. DEC			

REMARKS


Mount Redford
Mine Waste
DEEKYAKUS I.R. 2
Creek
Draw
Maggie Lake
Maggie Lake
Maggie R
Falls
IR 1
IR
Radio
MACOAH PASSAGE
Hermit Islet
Macoah Passage
Larkins I
Staff It.
Spilling It
Rowlands It
Ottaway It
St Ines I
David I
Castle It.
Bryant Is
Forbes I
Curwen I
Little Maggie River
N
Little Maggie River
0
2
kilometres

NAME OF STREAM (Little Maggie River)

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows E. into Macoah Pass., Loudoun Chan., Barclay Dist.

POSITION 48 125 NE

LENGTH 0.4 km WIDTH 2.7 m DRAINAGE 1.9 km^2

COMPOSITION: BEDROCK ______ BOULDER ______ COARSE 40% FINE 40%

SILT & SAND 10% UNCLASSIFIED 10%

PERCENT GRADIENT	
0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
>1.00	throughout

WETTED AREA 1100 m^2 SPAWNING AREA 900 m^2

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to 0.4 km
CHUM	- to 0.4 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

- This is a small stream with good spawning gravel.
- The lower reaches of the stream were logged in the early 1950's.

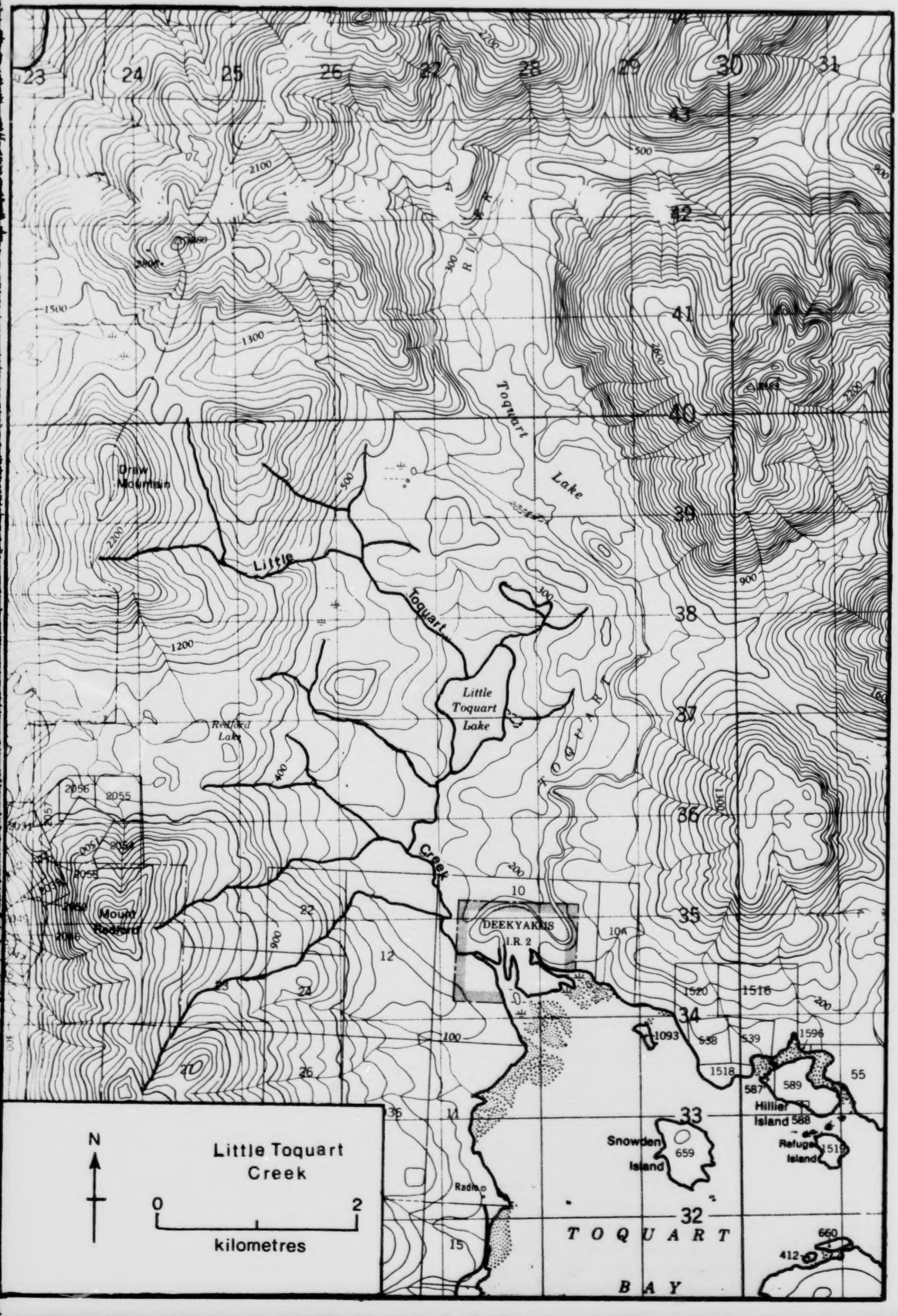
ESCAPEMENT RECORD FOR (Little Maggie River)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
53						
54			25	750		
55			25	75		
56			25	25		
57			25	400		
58			25	400		
59			25	750		
60			25	200		
61			75	400		
62			25	75		
63			25	75		
64			25	75		
65			25	200		
66			75	750		
67			25	200		
68			75	200		
69			25	400		
70			25	75		
71			25	25		
72			75	750		
73			75	400		
74			25	150		
75			75	75		
76			90	800		
77			80	180		
78			70	50		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			OCT	OCT		
START			E. NOV	L. OCT		
PEAK			NOV	NOV		
END			DEC	NOV		

REMARKS


Little Toquart
Creek
N
0
2
kilometres
Draw Mountain
Little
Toquart
Creek
Toquart
Lake
R I V E R
Little Toquart Lake
Redford Lake
Mount Redford
DEEKYAKUS
I.R. 2
Snowden Island
Hillier Island
Refuge Island
Radio
T O Q U A R T
B A Y
23
24
25
26
27
28
29
30
31
43
42
41
40
39
38
37
36
35
34
33
32

NAME OF STREAM LITTLE TOQUART CREEK

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows SE. into Toquart Bay, W. of Toquart R., Clayoquot Dist.

POSITION 49 125 SE

LENGTH 3.2 km WIDTH 4.6 m DRAINAGE 11.7 km²

COMPOSITION: BEDROCK 5% BOULDER 10% COARSE 20% FINE 40%

SILT & SAND 15% UNCLASSIFIED 10%

PERCENT GRADIENT

0.00 - 0.25	0 - 1.6 km
0.25 - 0.50	
0.50 - 0.75	1.6 - 2.4 km
0.75 - 1.00	
>1.00	2.4 - 3.2 km

WETTED AREA 14700 m²

SPAWNING AREA 8800 m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Impassable 6 m falls at 3.2 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	to falls at 3.2 km
CHUM	through lower 1.5 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

There are 3.2 km of potential area above the falls.

Little Toquart Lake and associated swamp have good potential as rearing areas.

GENERAL REMARKS

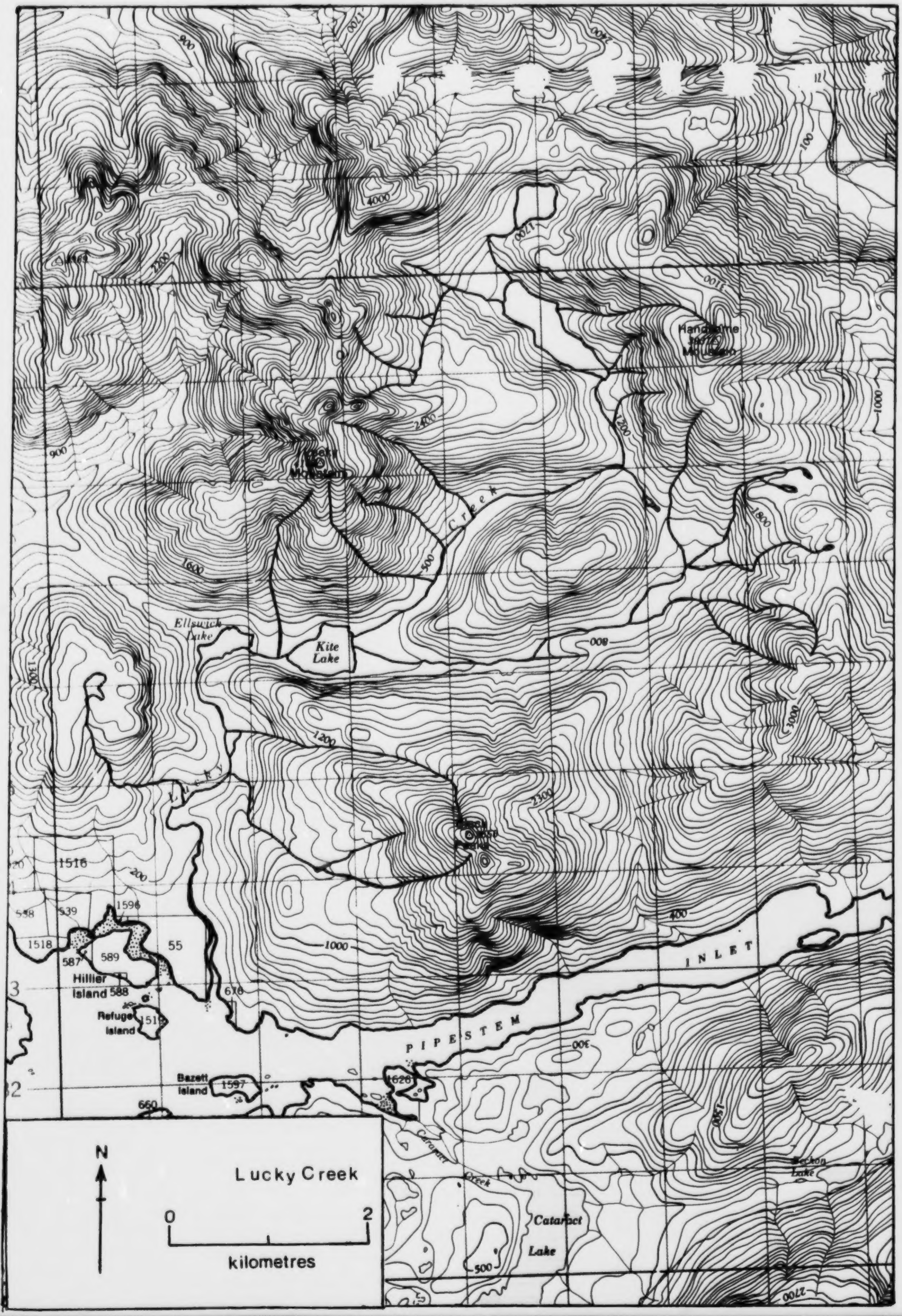
ESCAPEMENT RECORD FOR LITTLE TOQUART RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48			25	7500		
49				3500		
50				15000		
51						
52						
53						
54			25	15000		
55			25	400		
56			25	1500		
57			25	15000		
58			25	15000		
59			25	3500		
60			25	3500		
61			25	3500		
62			25	3500		
63			25	750		
64			25	750		
65			25	750		
66			75	7500		
67			75	750		
68			75	3500		
69			75	3500		
70			200	3500		
71			75	400		
72			75	7500		
73			200	5000		
74		10	75	750		
75			75	4500		
76			60	6200		
77			90	6500		
78			100	350		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			OCT	OCT		
START			OCT	M. OCT		
PEAK			NOV	L. OCT		
END			DEC	NOV		

REMARKS


Lucky Creek
N
0
2
kilometres
Ellswick Lake
Kite Lake
Creek
Lucky
Hillier Island
Refuge Island
Bazett Island
PIPESTEM INLET
Cataract Creek
Cataract Lake
Beckon Lake
1516
1518
1596
587
589
588
55
676
1597
1626
660
4000
2400
2300
1800
1600
1200
1000
900
800
500
400
300
200
100
3000
2700

NAME OF STREAM LUCKY CREEK

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows S. into Pipestem Inlet, W. of Effingham Inlet, Clayoquot Dist. POSITION 49 125 SE

LENGTH 0.8 km WIDTH 6 m DRAINAGE km^2

COMPOSITION: BEDROCK 20% BOULDER 30% COARSE 30% FINE 10%

SILT & SAND 10% UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
>1.00	

WETTED AREA 4800 m^2 SPAWNING AREA 1900 m^2

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Passable 1.5 m falls at 0.5 km.

Impassable 6 m falls at 0.8 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to falls at 0.8 km
CHUM	- lower tidal section
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

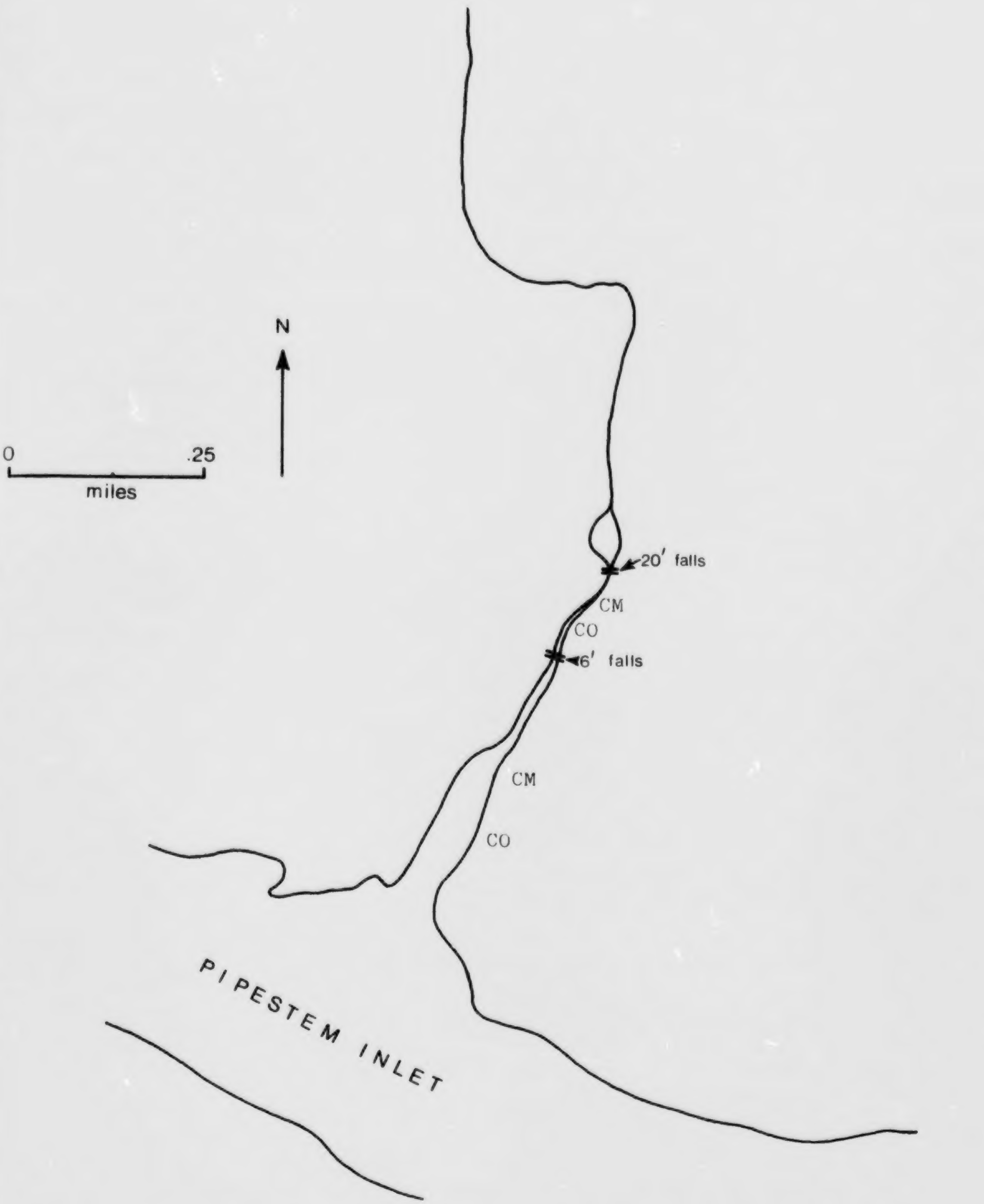
POTENTIAL OF INACCESSIBLE PORTION OF STREAM

Above 0.8 km the stream is a mass of falls and canyons with little or no spawning gravel.

GENERAL REMARKS

- Most of stream utilized by salmon is in the tidal section.
- There is heavy predation by birds during low water periods.

Sketch of Lucky Creek Spawning Grounds (1969)


N
0
.25
miles
20′ falls
CM
CO
6′ falls
CM
CO
PIPESTEM INLET

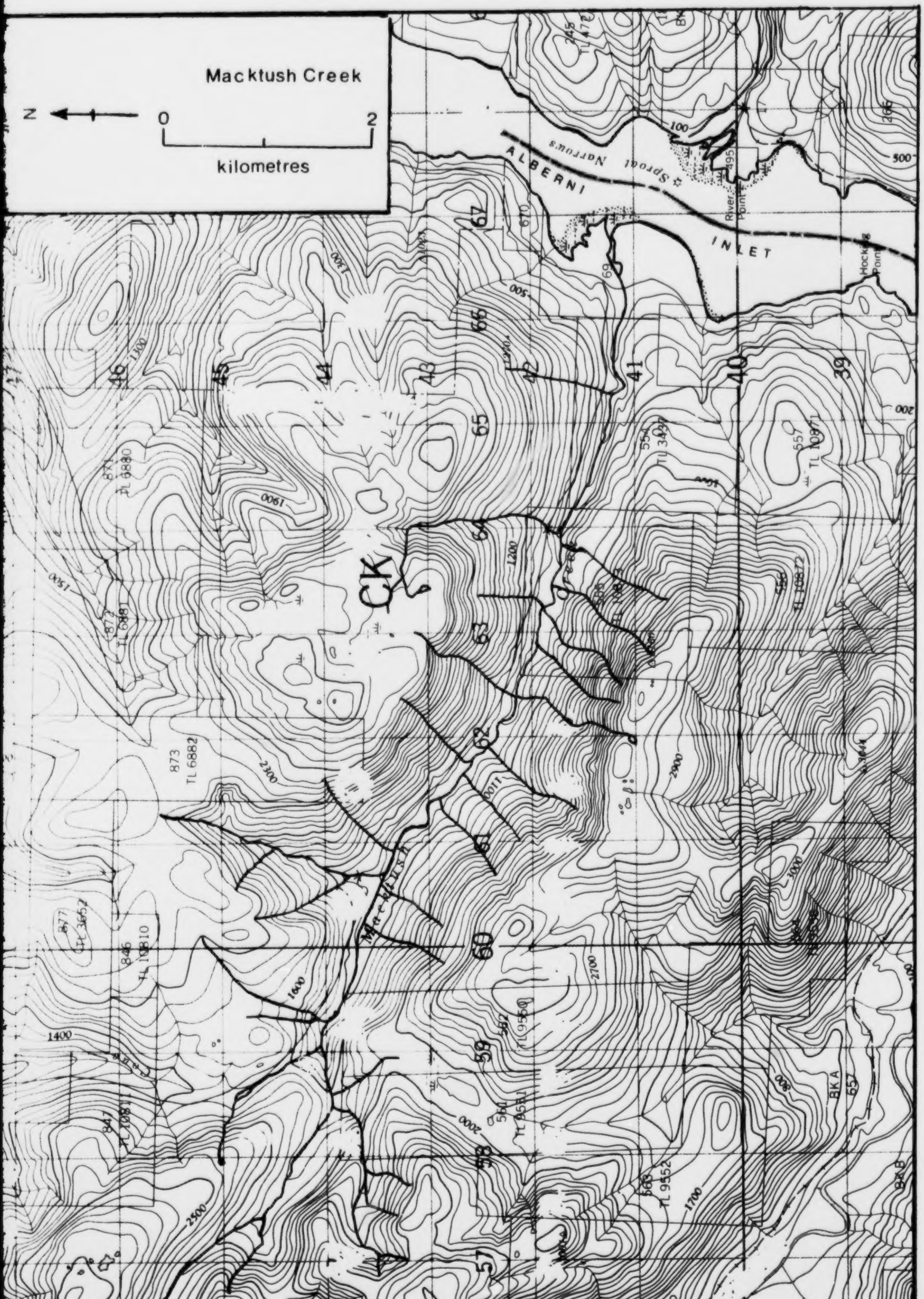
ESCAPEMENT RECORD FOR LUCKY CREEK

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48				200		
49				200		
50				750		
51			400	1500		
52				75		25
53			75	1500		25
54			25	400		25
55			75	75		
56			25	400		25
57			25	750		25
58			25	750		75
59			25	200		75
60			25	75		75
61			75	400		75
62			25	75		200
63			25	200		200
64			75	200		75
65			25	200		75
66			75	200		UNK
67			75	750		
68			200	400		UNK
69			75	750		UNK
70			25	400		UNK
71			25	75		UNK
72		25	25	400		
73		N/O	75	200		
74			25	150		
75			25	75		
76		N/O	50	250		
77			70	500		
78			70	400		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			NOV	E. OCT		
START			NOV	M. OCT		
PEAK			NOV	OCT		
END			DEC	NOV		

REMARKS


Macktush Creek
N
0
2
kilometres
ALBERNI INLET
Sproat Narrows
River Point
Hocking Point
CK
Macktush
Creek

NAME OF STREAM MACKTUSH CREEK (Macktoosh Creek)

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows E. into Sproat Narrows, Alberni Inlet, Clayoquot Dist.

POSITION 49 124 SW

LENGTH 8 km WIDTH 7.6 m DRAINAGE 23.3 km^2

COMPOSITION: BEDROCK 15% BOULDER 30% COARSE 30% FINE 10%

SILT & SAND 10% UNCLASSIFIED 5%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.2 km
0.25 - 0.50	
0.50 - 0.75	0.2 - 0.8 km
0.75 - 1.00	
>1.00	0.8 - 4.8 km

WETTED AREA 60800 m^2 SPAWNING AREA 24300 m^2

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- throughout; mainly 0.8 - 4.8 km
CHUM	- lower 1.6 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

- 1974. Logging operations commenced in this watershed.
- 1975. Silting of the stream occurs due to poor logging road construction.

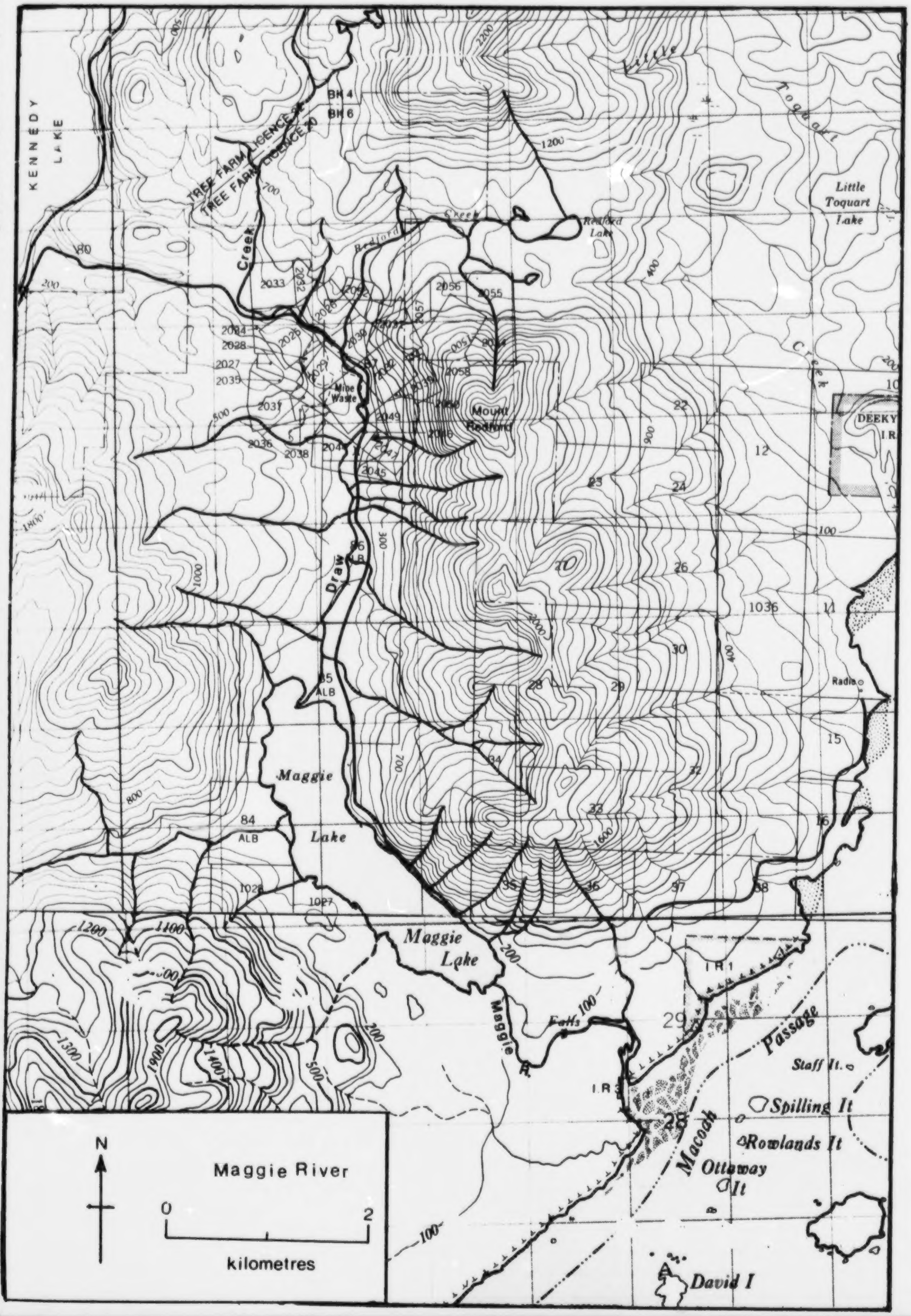
ESCAPEMENT RECORD FOR MACKTUSH CREEK (Macktoosh Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48			400	200		
49			400	200		
50			400	750		
51			200	75		
52			200	75		
53			25	750		
54			25	200		
55			25	25		
56			25	25		
57			25	25		
58			25	25		
59			25	25		
60			25	25		
61			25	25		
62			25	25		
63			25	25		
64		25	25	25		
65			25	25		
66			25	200		
67			75	25		
68			200	400		
69			200	N/O		UNK
70			75	25		
71			25	N/O		
72			N/O	25		
73			200	N/O		
74			25	25		
75			40	N/O		
76			45	N/O		
77			20			
78			40	N/O		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			OCT			
START			NOV			
PEAK			NOV			
END			DEC			

REMARKS


KENNEDY LAKE
TREE FARM LICENCE 54
TREE FARM LICENCE 20
BK 4
BK 6
Little Toquart
Little Toquart Lake
Redford Creek
Redford Lake
Creek
Mount Redford
Mine Waste
DEEKY I.R
Draw
Maggie Lake
Maggie Lake
Maggie R.
Falls
I.R 1
I.R 3
Macoah Passage
Staff It.
Spilling It
Rowlands It
Ottaway It
David I
Radio
86 ALB
85 ALB
84 ALB
1200
1100
1300
1400
1900
1600
1000
900
800
700
500
400
300
200
100
Maggie River
N
0
2
kilometres

NAME OF STREAM MAGGIE RIVER

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows SE. into Macoah Pass., S. of Toquart Bay, Barclay Dist.

POSITION 48 125 NE

LENGTH ______ km WIDTH 18.3 m DRAINAGE 25.9 km^2

*COMPOSITION: BEDROCK 30% BOULDER 20% COARSE 20% FINE 10%

SILT & SAND 10% UNCLASSIFIED 10%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.8 km
0.25 - 0.50	
0.50 - 0.75	0.8 - 2.4 km; lake to 1.2 km on Draw Creek
0.75 - 1.00	
>1.00	1.2 - 3.2 km on Draw Creek

WETTED AREA * 14700 m^2 SPAWNING AREA * 4400 m^2

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Falls and cascades at 0.8 km bypassed with a fish ladder.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- throughout
CHUM	- lower 0.8 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

* For the section of stream from 0 to 0.8 km.

Tributaries:

Draw Creek: length = 3.2 km width = 9 m wetted area = 28800 m^2
spawning area = 8400 m^2 (the stream is accessible for another 5 km)
- The stream is a series of long riffles interconnected with deep pools.
- A total of 8,500,000 sockeye eggs were planted in Draw Creek during the years 1929, 1930, 1931, 1933, 1937, 1938, 1939 & 1941 but no appreciable returns were observed.

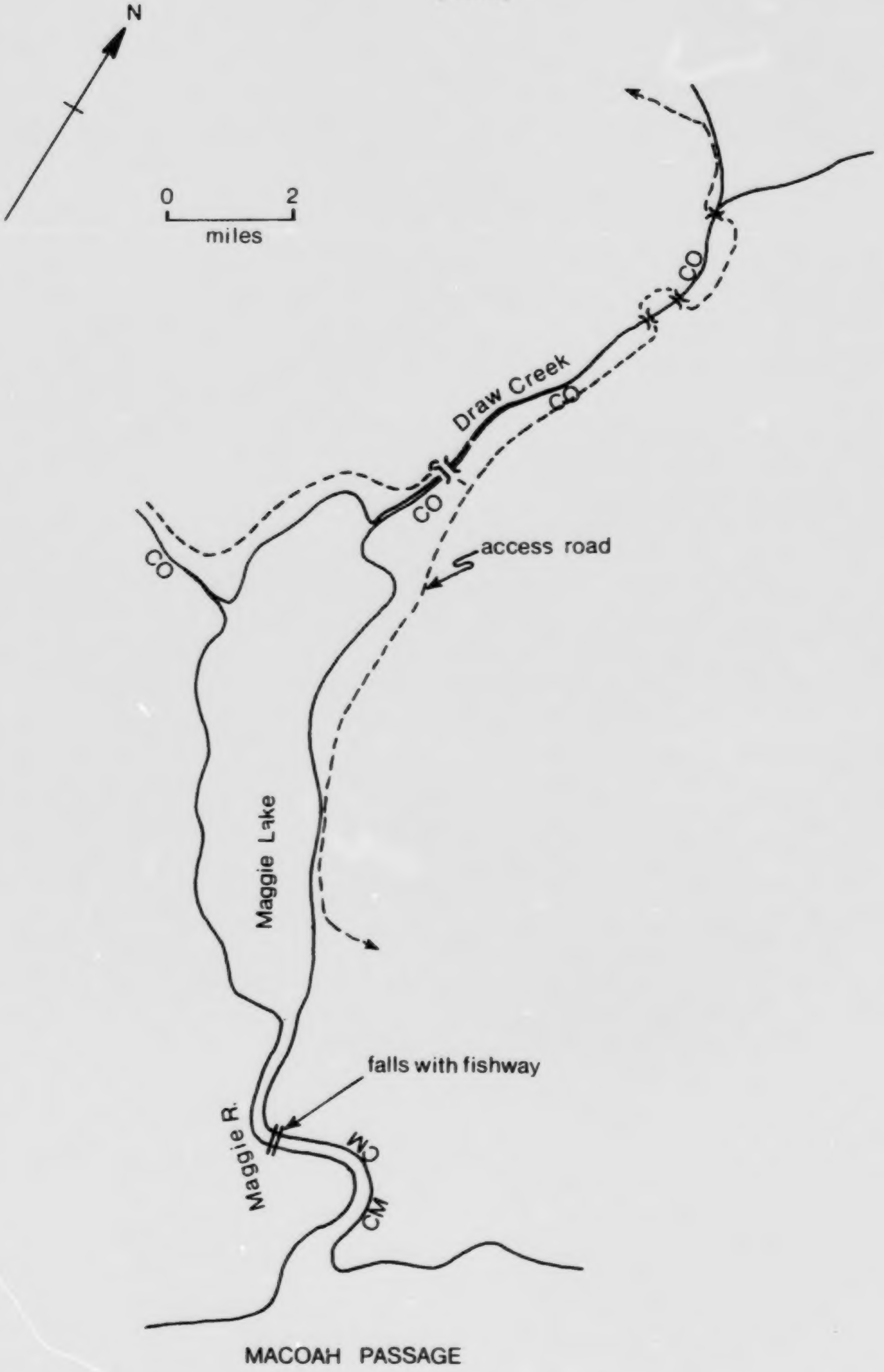
GENERAL REMARKS (cont.) - Maggie River

Side Creek:
- contains small to medium sized gravel
- has approximately 4200 km^2 suitable spawning area

Maggie Lake: length = 3.5 km width = 0.8 km surface area = 2.8 km^2
- The shoreline consists of bedrock and in most places drops off very steeply. The bottom is composed of mud and weed sections.
- There are small areas of suitable spawning gravel at the exit of the lake and where Side and Draw Creeks enter the lake.

- 1961 to 1969. Noranda Mining Co. had a large mine operating on Draw Creek.
- The fishway at 0.8 km on Maggie River is constantly in need of repairs.

Sketch of Maggie River Spawning Grounds
(1969)

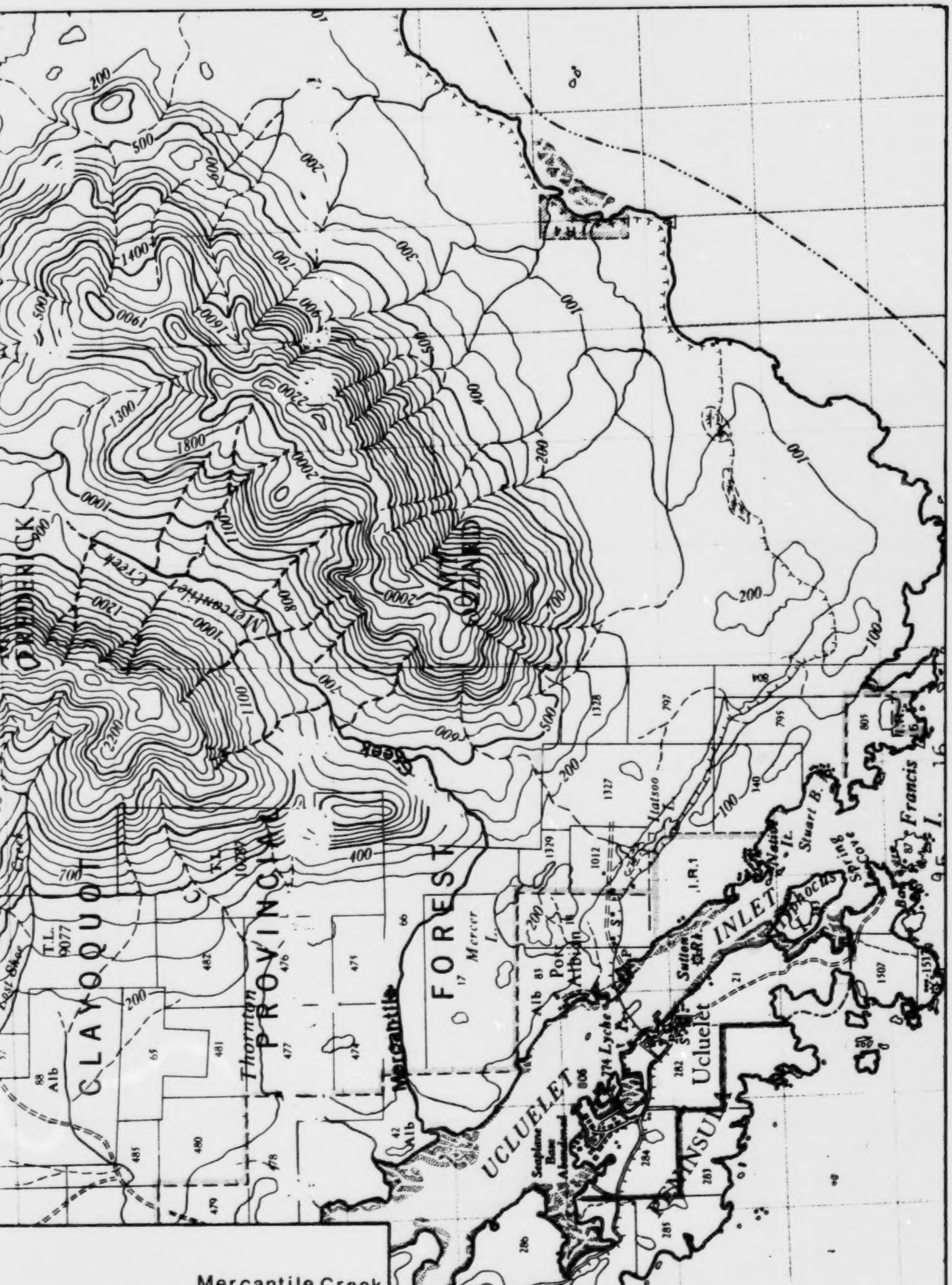

N
0
2
miles
Draw Creek
CO
CO
CO
CO
CO
access road
Maggie Lake
falls with fishway
Maggie R.
CM
CM
MACOAH PASSAGE

ESCAPEMENT RECORD FOR MAGGIE RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48			200	75		
49			200	75		
50			200	400		
51			3500	750		
52			750	200		
53			3500	1500		
54			7500	400		
55			7500	200		
56			750	200		
57			3500	750		
58			3500	1500		75
59			3500	750		200
60			1500	750		UNK
61			3500	750		200
62			3500	400		200
63			3500	200		200
64			3500	200		200
65			1500	400		UNK
66			1500	400		UNK
67			3500	1500		
68			3500	750		
69			400	200		UNK
70			1500	750		
71			400	75		
72			750	1500		
73	25		2000	200		
74			1500	750		
75			1200	200		
76			1800	2000		
77			1300	290		
78			1500	400		
79						
80						
81						
82						
83						
84						
85						

TIMING:						
ARRIVE			AUG	E. OCT		
START			M. OCT	OCT		
PEAK			NOV	L. OCT		
END			DEC	NOV		

REMARKS


Mercantile Creek
N
0
2
kilometres
FREDERICK
MT. COLNETT
CLAYOQUOT
PROVINCIAL
FOREST
Mercantile Creek
Thornton
Mercer L.
Port Albion
Itatsoo
I.R.1
Sutton
UCLUELET
INLET
Ucluelet
Lyche
Seaplane Base Abandoned
PENINSULA
UCLUTH
Stuart B.
Spring Cove
Francis I.

NAME OF STREAM MERCANTILE CREEK (Mill Creek)

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows S. and W. into Ucluelet Inlet, Clayoquot Dist.

POSITION 48 125 NW

LENGTH 0.2 km WIDTH 9.1 m DRAINAGE 20.7 km^2

COMPOSITION: BEDROCK BOULDER 10% COARSE 50% FINE 30%

SILT & SAND 10% UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	throughout
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
>1.00	

WETTED AREA 1800 m^2 SPAWNING AREA 1400 m^2

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Impassable falls and dam at 0.2 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	
CHUM	- to falls at 0.2 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

- This stream has very little good spawning area.
- The city of Ucluelet obtains it's water supply from this stream.

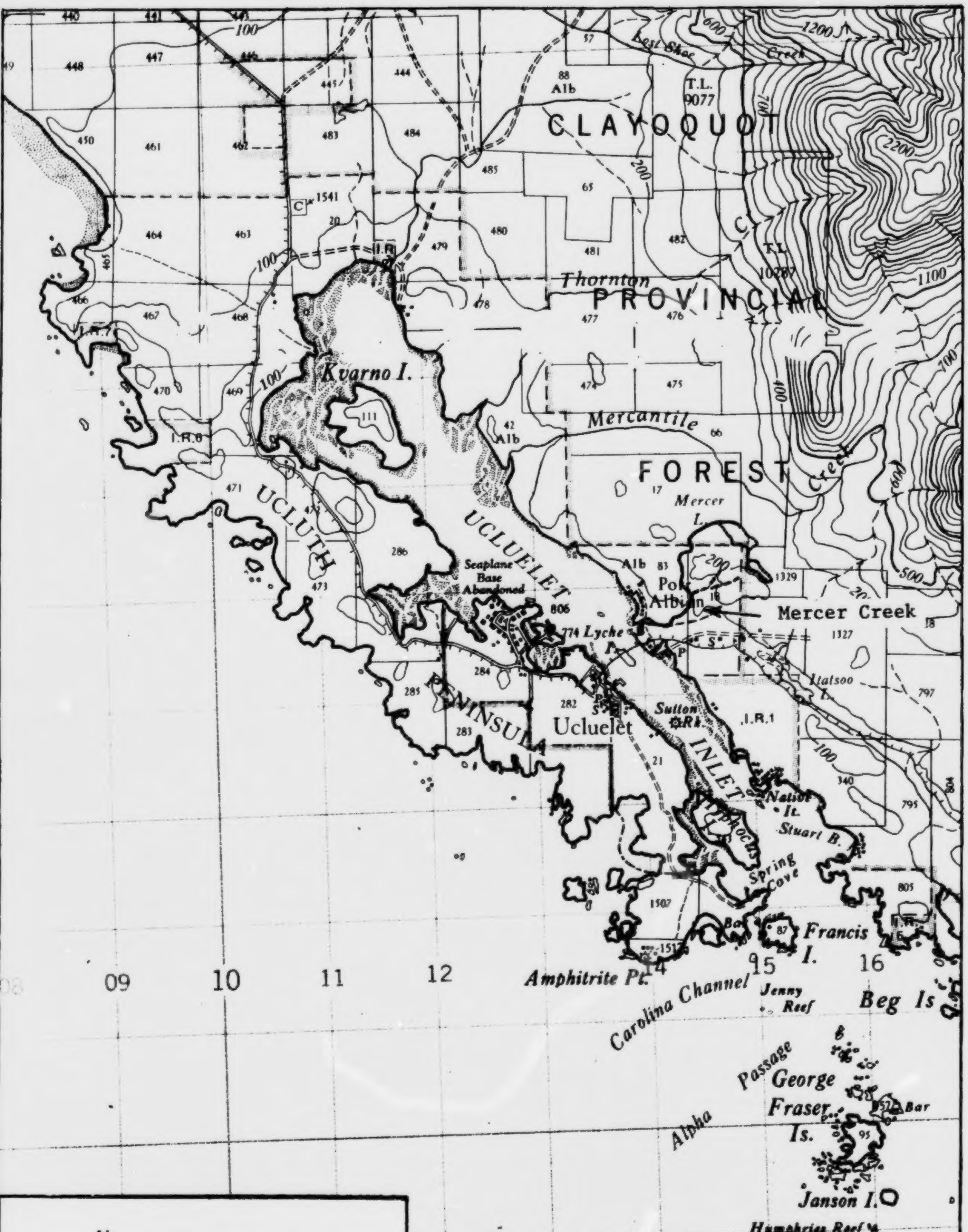
ESCAPEMENT RECORD FOR MERCANTILE CREEK (Mill Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48				25		
49				25		
50				400		
51				200		
52				25		
53				75		
54				200		
55				75		
56				75		
57				200		
58				750		
59				1500		
60				75		
61				75		
62				25		
63				400		
64				75		
65				75		
66				750		
67				75		
68				200		
69				400		
70				400		
71				200		
72				200		
73				200		
74				75		
75				200		
76				240		
77				200		
78				100		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE				OCT		
START				OCT		
PEAK				L. OCT		
END				NOV		

REMARKS


CLAYOQUOT
PROVINCIAL
FOREST
Lost Shoe Creek
Thornton
Mercantile
Creek
Mercer L.
T.L. 9077
T.L. 10787
Kvarno I.
UCLUTH
PENINSULA
UCLUELET
INLET
Seaplane Base Abandoned
Lyche
Port Albion
Mercer Creek
Ucluelet
Sutton Rk.
I.R.1
I.R.6
I.R.7
Itatsoo L.
Stuart B.
Spring Cove
Francis I.
Amphitrite Pt.
Carolina Channel
Jenny Reef
Beg Is
Alpha Passage
George Fraser Is.
Bar
Janson I.
Humphries Reef
09
10
11
12
14
15
16
100
200
400
500
600
700
1100
1200
2200
N
Mercer Creek
0
2
kilometres

NAME OF STREAM (Mercer Creek, Hillier Creek)

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows S. and W. into Ucluelet Inlet at Port Albion, Clayoquot Dist. POSITION 48 125 NW

LENGTH 0.8 km WIDTH 6 m DRAINAGE 3.9 km²

COMPOSITION: BEDROCK 25% BOULDER 25% COARSE 20% FINE 10%

SILT & SAND 10% UNCLASSIFIED 10%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.3 km
0.25 - 0.50	
0.50 - 0.75	0.3 - 0.8 km
0.75 - 1.00	
>1.00	0.8 - 1.9 km

WETTED AREA 4800 m² SPAWNING AREA 1400 m²

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	
CHUM	- to 0.8 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

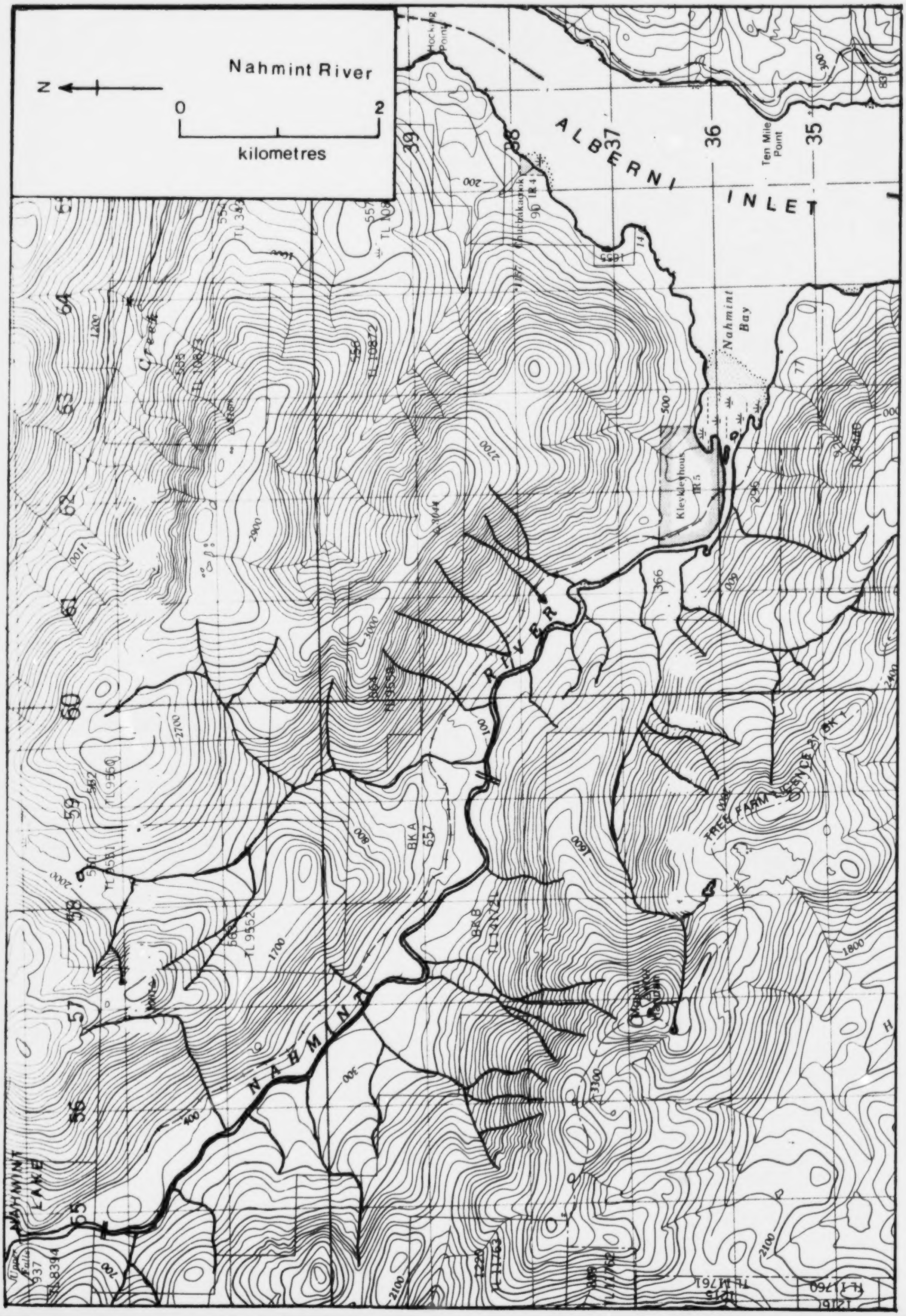
ESCAPEMENT RECORD FOR (Mercer Creek, Hillier Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48				1500		
49				1500		
50				1500		
51				400		
52				750		
53				750		
54				1500		
55				200		
56				400		
57				400		
58				750		
59				750		
60				75		
61				400		
62				400		
63				200		
64				750		
65				200		
66				3500		
67				750		
68				750		
69				3500		
70				1500		
71				400		
72				1500		
73				750		
74				750		
75				75		
76				1200		
77				550		
78				500		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE				OCT		
START				OCT		
PEAK				NOV		
END				NOV		

REMARKS


Nahmint River
N
0
2
kilometres
ALBERNI INLET
Hocking Point
Ten Mile Point
Nahmint Bay
Kleykleyhous IR 5
NAHMINT RIVER
NAHMINT LAKE
Creek
TREE FARM LICENCE
35
36
37
38
39
55
56
57
58
59
60
61
62
63
64
65

NAME OF STREAM NAHMINT RIVER

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows SE. through Nahmint L., into Alberni Inlet, Alberni Dist.

POSITION 49 124 SW

LENGTH 4.8 km WIDTH m DRAINAGE 198 km^2

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	0 - 4.8 km
0.75 - 1.00	4.8 - 11.9 km
>1.00	11.9 - 12.9 km

WETTED AREA 138000 m^2 SPAWNING AREA 117000 m^2

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Impassable set of 3 cascades (1.8 m, 2.4 m & 1.5 m) over a distance of 182 m beginning at 4.8 km.

Impassable 1.8 m falls at 11.3 km.

Upper Nahmint River - Impassable series of falls beginning at 4.8 km above the lake.

Impassable falls at 12.9 km above the lake.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- to falls at 4.8 km
COHO	- to falls at 4.8 km
CHUM	to falls at 4.8 km; mainly in lower 2.4 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

Lower Nahmint River - Above the cascades at 4.8 km there is approximately 6.5 km of good spawning area (117000 m^2 wetted area; 41800 m^2 spawning area).

Upper Nahmint River - From the lake to 4.8 km there is approximately 25000 m of good spawning area. Above the falls at 4.8 km there is another 25000 m^2 of good spawning area over 8 km.

GENERAL REMARKS

- 1974. A heavy sport fishery exists on this stream.
- 1977. Logging commenced in this watershed.

References:

Bond, K. W., M. J. Brownlee, T. W. Chamberlain and J. M. Lamb. 1975. Biophysical stream survey of the Upper Nahmint River and Nahmint Lake. Environment Canada, F.M.S. Tech. Rep. PAC/T-75-3. 31 pp.
(also contains a bibliography of studies done on the Nahmint River to 1975)

Narver, D. W. 1974. Age and size of Nahmint River summer steelhead in angler's catches, 1973. Pacific Biological Station, Nanaimo. Circular 97. 15 pp.

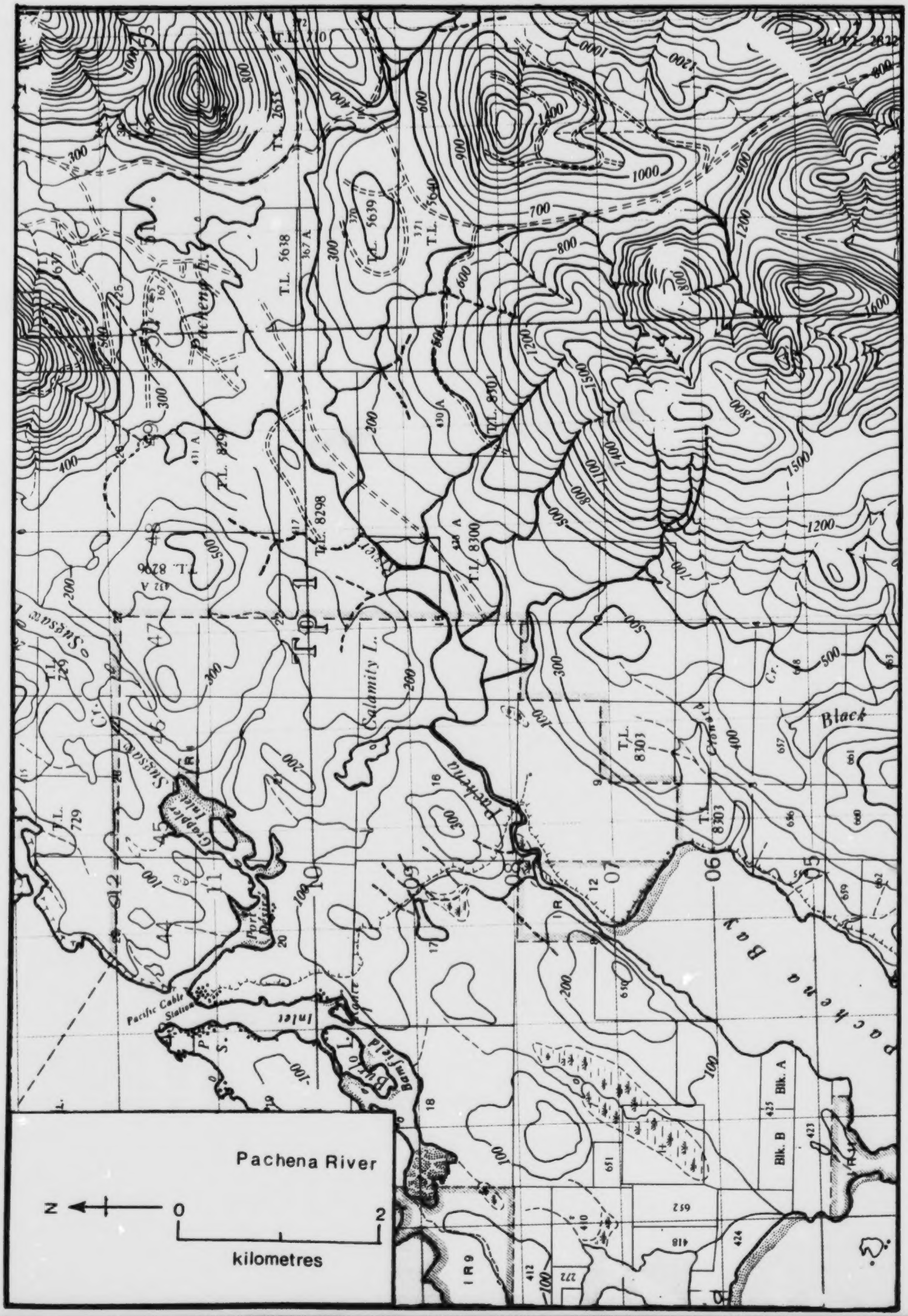
ESCAPEMENT RECORD FOR NAHMINT RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48		7500	3500	35000		400
49		7500	750	35000		400
50		7500	7500	75000		400
51		3500	1500	35000		400
52		3500	750	15000	750	400
53		3500	1500	100000+	N/O	400
54		3500	75	75000	200	400
55		3500	75	3500	1500	400
56		750	200	7500	200	400
57		400	200	15000	N/O	400
58		400	200	35000	75	UNK
59		1500	400	15000	25	400
60		750	75	7500	75	400
61		1500	200	7500	200	750
62		400	200	15000	25	750
63		1500	200	15000	N/O	400
64		400	200	10000		400
65		400	200	35000	N/O	UNK
66		750	400	15000	N/O	UNK
67		400	200	35000	N/O	
68		1500	400	75000		UNK
69		750	200	35000		UNK
70		750	200	35000		750
71		1200	400	12000		UNK
72		900	200	35000		750
73		750	650	35000		
74		600	400	15000		
75		750	400	20000		UNK
76		550	250	40000	150	UNK
77	80	450	450	25000		
78		300	500	25000		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE		SEP	OCT	OCT		
START		OCT	L. OCT	M. OCT		
PEAK		OCT	NOV	E. NOV		
END		NOV	DEC	L. NOV		

REMARKS


Pachena River
N
0
2
kilometres
Pachena Bay
Calamity L.
Pachena L.
Grappler Inlet
Port Desire
Pacific Cable Station
Bamfield
Inlet
Black
Cr.
Tp 1
T.L. 8300
T.L. 8303
Blk. A
Blk. B
IR 9

NAME OF STREAM PACHENA RIVER

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows SW. into Pachena Bay, SE. of Barkley Sd., Barclay Dist.

POSITION 48 125 NE

LENGTH 8.9 km WIDTH 9.1 m DRAINAGE 31 km^2

COMPOSITION: BEDROCK 5% BOULDER 5% COARSE 30% FINE 30%

SILT & SAND 15% UNCLASSIFIED 15%

PERCENT GRADIENT

0.00 - 0.25	0 - 2.4 km
0.25 - 0.50	2.4 - 6.4 km
0.50 - 0.75	
0.75 - 1.00	
>1.00	6.4 - 8.9 km

WETTED AREA 81000 m^2 SPAWNING AREA 49000 m^2

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Impassable 3 m falls at 8.9 km.

SPAWNING DISTRIBUTION

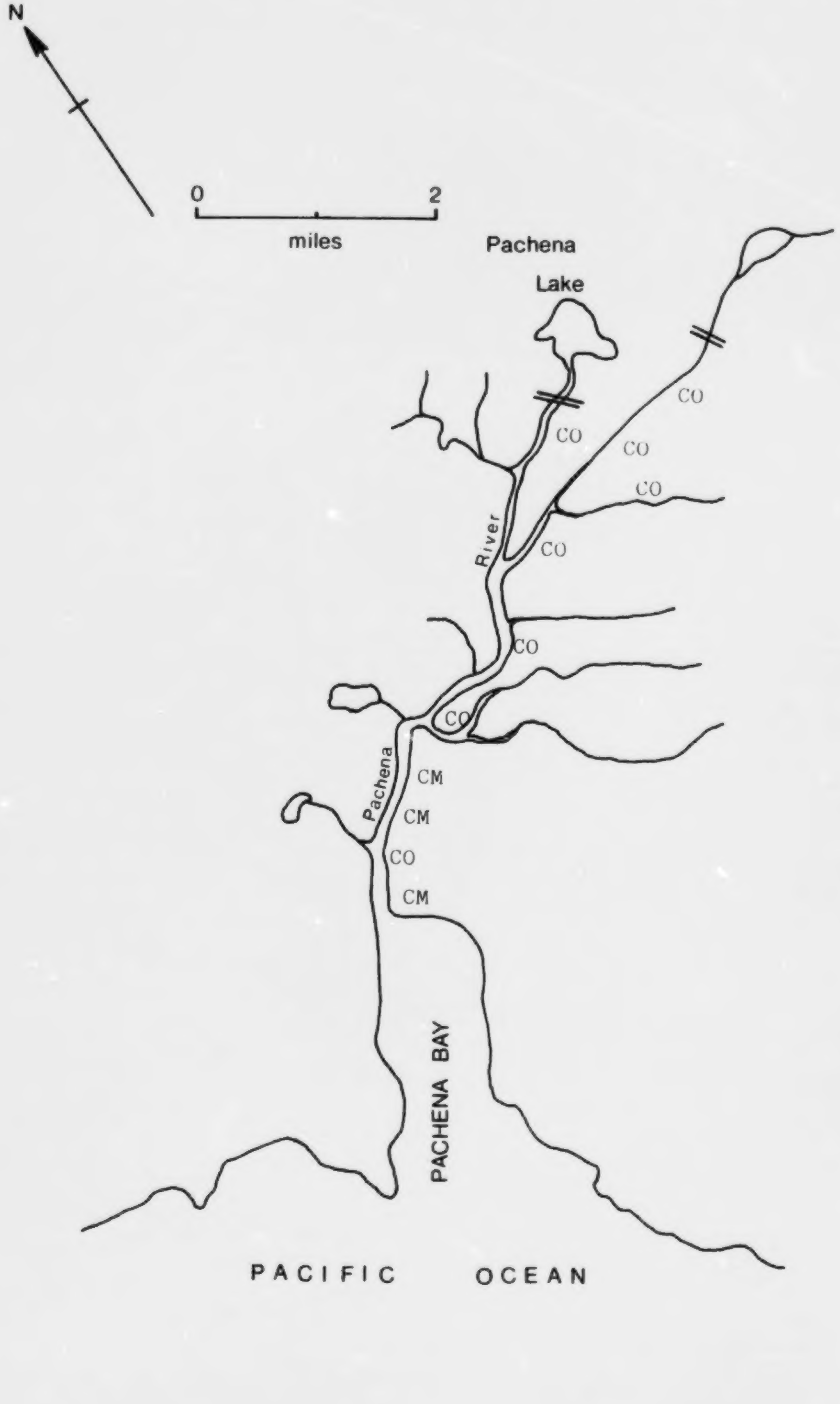
SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to falls at 8.9 km
CHUM	- to 4.8 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

- The Pachena River watershed has been heavily logged and active logging is still going on.
- 1977. A single incubation box for coho was installed on the river by a local Bamfield group.
- This watershed has many inaccessible tributaries and swampy areas.

Sketch of Pachena River Spawning Grounds (1969)


N
0
2
miles
Pachena
Lake
CO
CO
CO
CO
CO
CO
CO
River
Pachena
CM
CM
CO
CM
PACHENA BAY
PACIFIC OCEAN

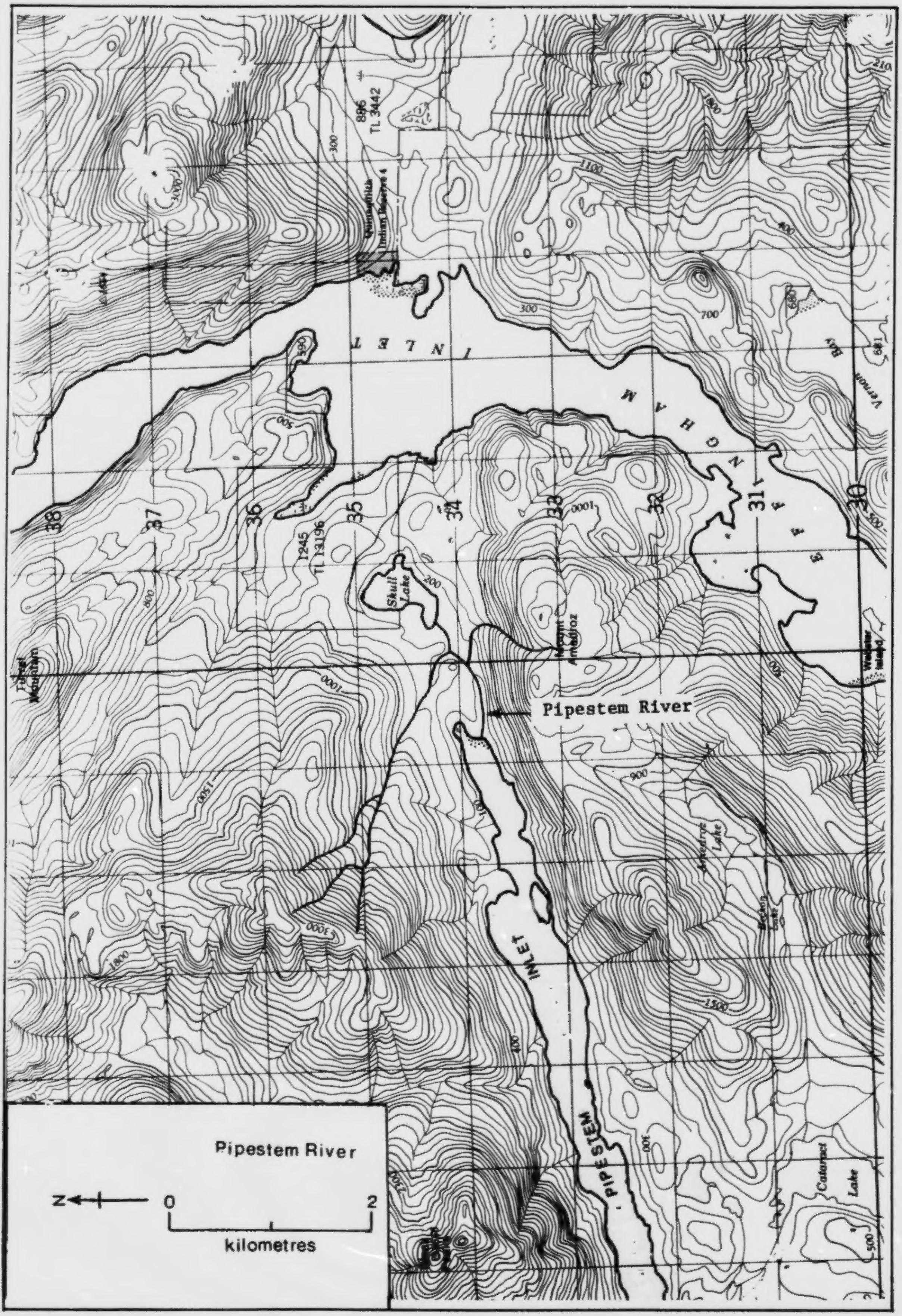
ESCAPEMENT RECORD FOR PACHENA RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48			1500	200		200
49			3500	400		200
50			400	1500		
51			1500	1500		
52			3500	200		
53			400	750		200
54			1500	1500		200
55			1500	400		200
56			200	400		200
57			1500	1500		200
58			750	750		UNK
59			400	400		200
60			200	75		200
61			750	400		200
62			200	200		200
63			75	200		200
64			750	200		200
65			200	200		UNK
66			200	750		UNK
67			200	1500		
68			750	750		UNK
69			400	75		UNK
70			750	75		200
71			400	N/O		75
72			400	200		UNK
73			400	200		
74			400	200		
75			200	75		
76			250	400		
77			750	150		
78			900	500		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			OCT	OCT		
START			OCT	OCT		
PEAK			NOV	NOV		
END			DEC	NOV		

REMARKS


Pipestem River
N
0
2
kilometres
Pipestem River
EFFINGHAM
INLET
PIPESTEM
INLET
Skull Lake
Vernon Bay
Cataract Lake
886
TL 3442
1245
TL 13196
38
37
36
35
34
33
32
31
30
300
1100
400
1800
700
500
200
1000
900
1500

NAME OF STREAM (Pipestem River)

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows SE. and W. into Pipestem Inlet, W. of Effingham Inlet, Clayoquot Dist. POSITION 49 125 SE

LENGTH 1.2 km WIDTH 4.6 m DRAINAGE 7.8 km²

COMPOSITION: BEDROCK 10% BOULDER 15% COARSE 30% FINE 10%
SILT & SAND 15% UNCLASSIFIED 20%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.3 km
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
>1.00	0.3 - 1.2 km

WETTED AREA 5500 m² SPAWNING AREA 2200 m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT
Impassable cascades and canyon at 1.2 km

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to cascades at 1.2 km
CHUM	- to cascades at 1.2 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

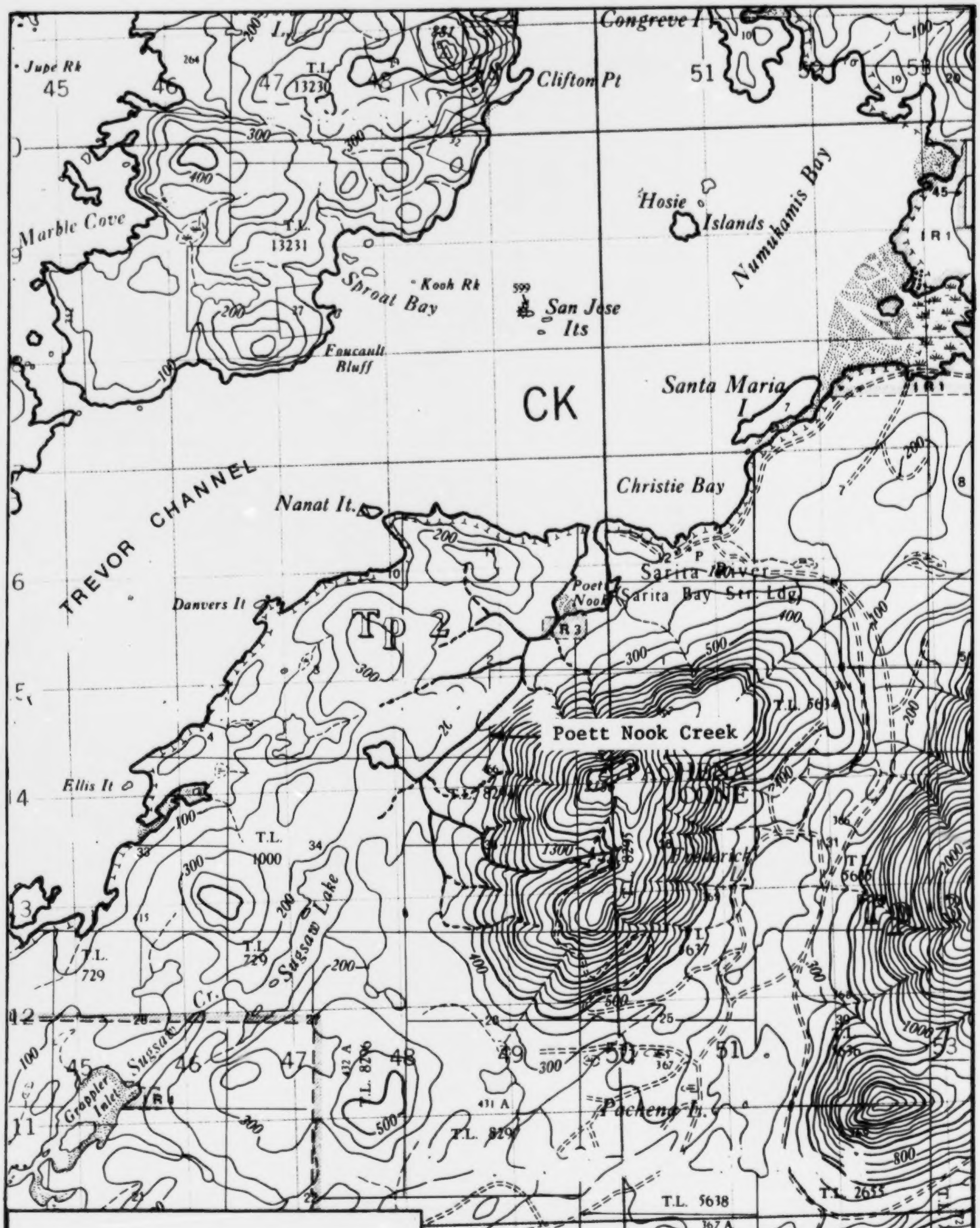
GENERAL REMARKS

ESCAPEMENT RECORD FOR (Pipestem River)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48			400	250		
49			25	400		
50			400	1500		
51			200	7500		
52			200	750		
53			75	1500		
54			25	1500		
55			25	400		
56			25	3500		
57			25	1500		
58			25	1500		
59			25	1500		
60			25	400		
61			25	750		
62			25	200		
63			25	200		
64			25	400		
65			25	400		
66			25	750		
67			75	400		
68			200	750		
69			200	750		
70			400	200		
71			25	200		
72			25	750		
73			400	750		
74			75	1000		
75			40	400		
76			75	280		
77			90	180		
78			80	500		
79						
80						
81						
82						
83						
84						
85						

TIMING:						
ARRIVE			OCT	OCT		
START			NOV	OCT		
PEAK			NOV	L. OCT		
END			DEC	NOV		

REMARKS


Jupe Rk
Congreve I
Clifton Pt
Marble Cove
Hosie Islands
Numukamis Bay
Kooh Rk
Sproat Bay
San Jose Its
Foucault Bluff
Santa Maria I
CK
Christie Bay
TREVOR CHANNEL
Nanat It.
Danvers It
Tp 2
Poett Nook
Sarita River
(Sarita Bay Str. Ldg)
R 3
Poett Nook Creek
PACHENA CONE
Ellis It
Sugsaw Lake
Sugsaw Cr.
Grappler Inlet
Pachena L.
T.L. 13230
T.L. 13231
T.L. 1000
T.L. 729
T.L. 5634
T.L. 5637
T.L. 5638
T.L. 5639
T.L. 5640
T.L. 2655
IR 1
N
Poett Nook Creek
0
2
kilometres

NAME OF STREAM (Poett Nook Creek)

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows NE. into Poett Nook, S. of Christie Bay, Barclay Dist.

POSITION 48 125 NE

LENGTH 2.4 km WIDTH 4.6 m DRAINAGE 6.5 km²

COMPOSITION: BEDROCK ______ BOULDER 10% COARSE 40% FINE 20%

SILT & SAND 20% UNCLASSIFIED 10%

PERCENT GRADIENT	
0.00 - 0.25	0 - 0.8 km
0.25 - 0.50	
0.50 - 0.75	0.8 - 2.4 km
0.75 - 1.00	
>1.00	2.4 - 3.2 km

WETTED AREA 11000 m² SPAWNING AREA 6600 m²

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- throughout
CHUM	- lower 0.8 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

Logging is taking place in this water shed.

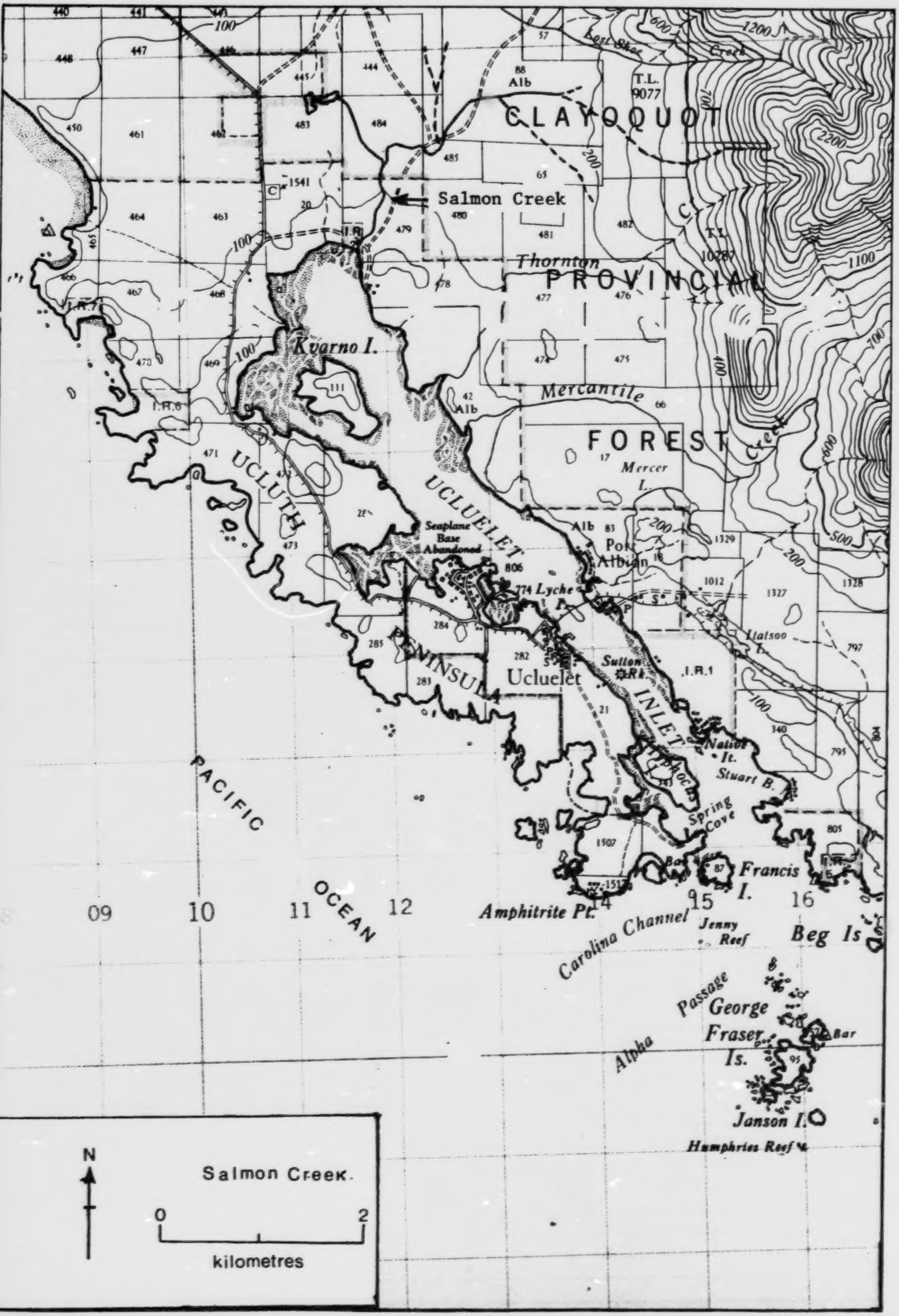
ESCAPEMENT RECORD FOR (Poett Nook Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48			750	212		
49			750	1500		
50			400	1500		
51			400	400		
52			400	400		
53			200	200		
54			75	400		
55			75	200		
56			25	750		
57			25	400		
58			75	750		
59			25	400		
60			25	200		
61			25	75		
62			25	400		
63			25	25		
64			75	200		
65			25	75		
66			25	400		
67			200	200		
68			200	750		
69			75	400		
70			200	750		
71			75	750		
72			25	750		
73			200	400		
74			75	1000		
75			40	650		
76			90	600		
77			110	520		
78			100	1000		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			L. OCT	OCT		
START			L. OCT	L. OCT		
PEAK			NOV	NOV		
END			DEC	NOV		

REMARKS


Salmon Creek
CLAYOQUOT
PROVINCIAL
FOREST
Thornton
Mercantile
Creek
Lost Shoe
Creek
T.L. 9077
T.L. 10287
Kvarno I.
UCLUTH
PENINSULA
UCLUELET
INLET
Seaplane Base Abandoned
Lyche
Port Albion
Mercer L.
Ucluelet
Sutton Rk.
Itatsoo L.
Spring Cove
Stuart B.
Francis I.
Amphitrite Pt.
Carolina Channel
Jenny Reef
Beg Is
Alpha Passage
George Fraser Is.
Janson I.
Humphries Reef
PACIFIC
OCEAN
09
10
11
12
14
15
16
N
Salmon Creek.
0
2
kilometres

NAME OF STREAM (Salmon Creek)

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows S. into Ucluelet Inlet, N. of Kvarno I., Clayoquot Dist.

POSITION 48 125 NW

LENGTH 3.2 km WIDTH 3.7 m DRAINAGE 13 km^2

COMPOSITION: BEDROCK ______ BOULDER 20% COARSE 30% FINE 30%

SILT & SAND 15% UNCLASSIFIED 5%

PERCENT GRADIENT

0.00 - 0.25	0 - 1.6 km
0.25 - 0.50	1.6 - 3.2 km
0.50 - 0.75	
0.75 - 1.00	
>1.00	

WETTED AREA 11800 m^2 SPAWNING AREA 7100 m^2

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- throughout
CHUM	- to 2.4 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

- 1976-77. This stream is being used as a source of chum salmon eggs for the Thornton Creek Hatchery.

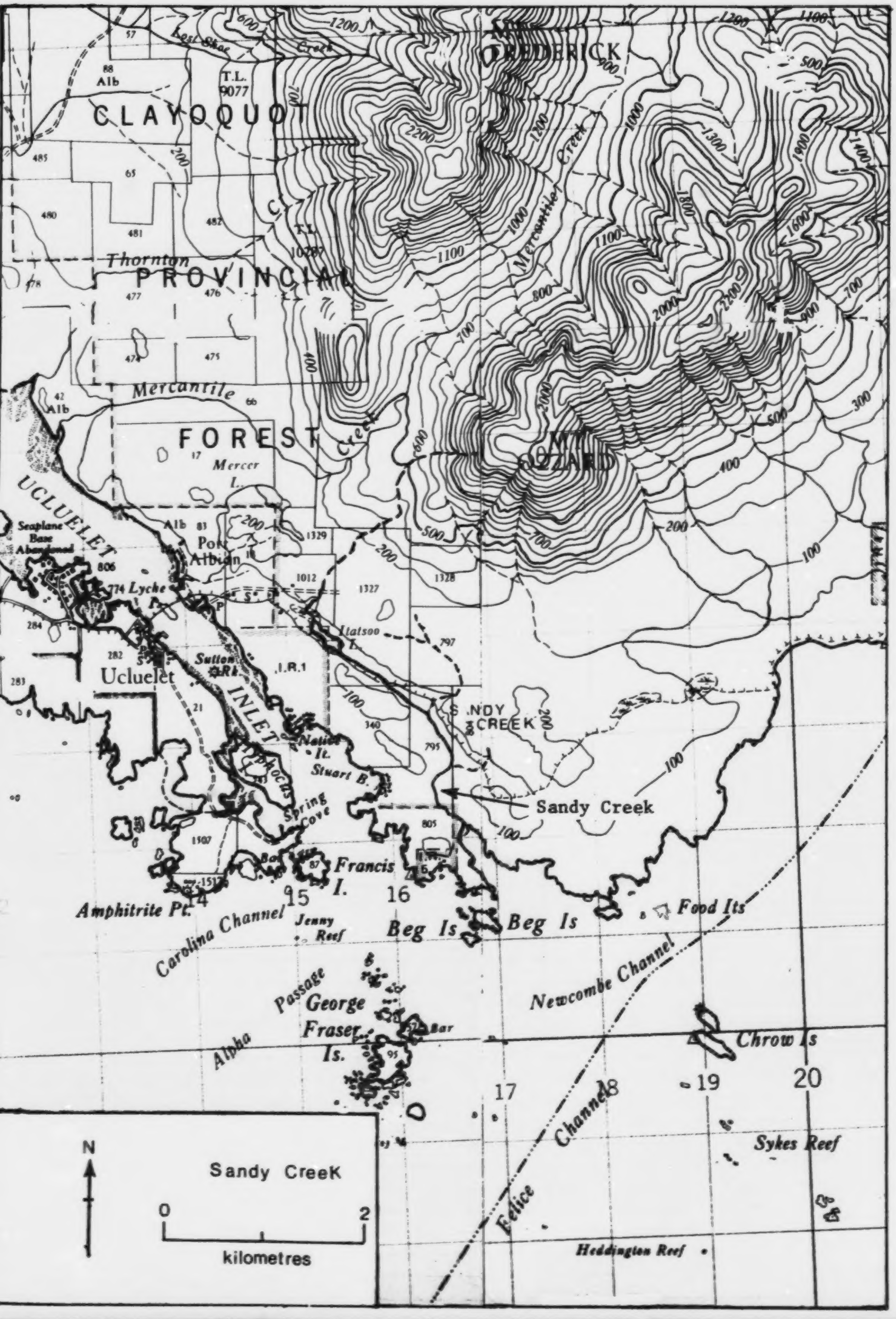
ESCAPEMENT RECORD FOR (Salmon Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947			200	3500	75	
48				90		
49				750	25	
50				1500		
51				3500		
52				1500		
53				3500		
54				7500		
55				500	25	
56				1500	N/O	
57				3500	N/O	
58				7500		
59			25	7500	N/O	
60			N/O	1500	N/O	
61			25	400		
62			25	750		
63			25	750		
64			25	750		25
65			25	200		UNK
66			25	3500		UNK
67			25	1500		
68			200	3500		
69			75	1500		
70			400	7500	25	
71			75	1500		
72			75	15000		
73			200	3500		
74			150	3500		
75			75	400		
76			70	5700		
77			105	5000		
78			100	3500		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			OCT	OCT		
START			NOV	M. OCT		
PEAK			NOV	L. OCT		
END			DEC	NOV		

REMARKS


Mt. FREDERICK
CLAYOQUOT
PROVINCIAL
FOREST
Mt. OZARD
Lost Shoe Creek
Thornton
Mercantile Creek
Mercer L.
Mercantile Creek
UCLUELET INLET
Seaplane Base Abandoned
Lyche
Port Albion
Ucluelet
Sutton Rk
Itatsoo L.
I.R.1
S.NDY CREEK
Native Pt.
Stuart B.
Spring Cove
Sandy Creek
Francis I.
Amphitrite Pt.
Carolina Channel
Jenny Reef
Beg Is
Beg Is
Food Its
Newcombe Channel
Alpha Passage
George Fraser Is.
Bar
Chrow Is
Felice Channel
Sykes Reef
Heddington Reef
14
15
16
17
18
19
20
N
Sandy CreeK
0
2
kilometres

NAME OF STREAM (Sandy Creek)

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows SE. into Newcombe Chan., N. of Beg Is., Clayoquot Dist.

POSITION 48 125 NW

LENGTH 1 km WIDTH 4.6 m DRAINAGE 2.1 km^2

COMPOSITION: BEDROCK 10% BOULDER 20% COARSE 30% FINE 20%

SILT & SAND 10% UNCLASSIFIED 10%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.3 km
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
>1.00	0.3 - 1 km

WETTED AREA 4600 m^2 SPAWNING AREA 2300 m^2

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Impassable 3.7 m falls and dam at 1 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	
CHUM	
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

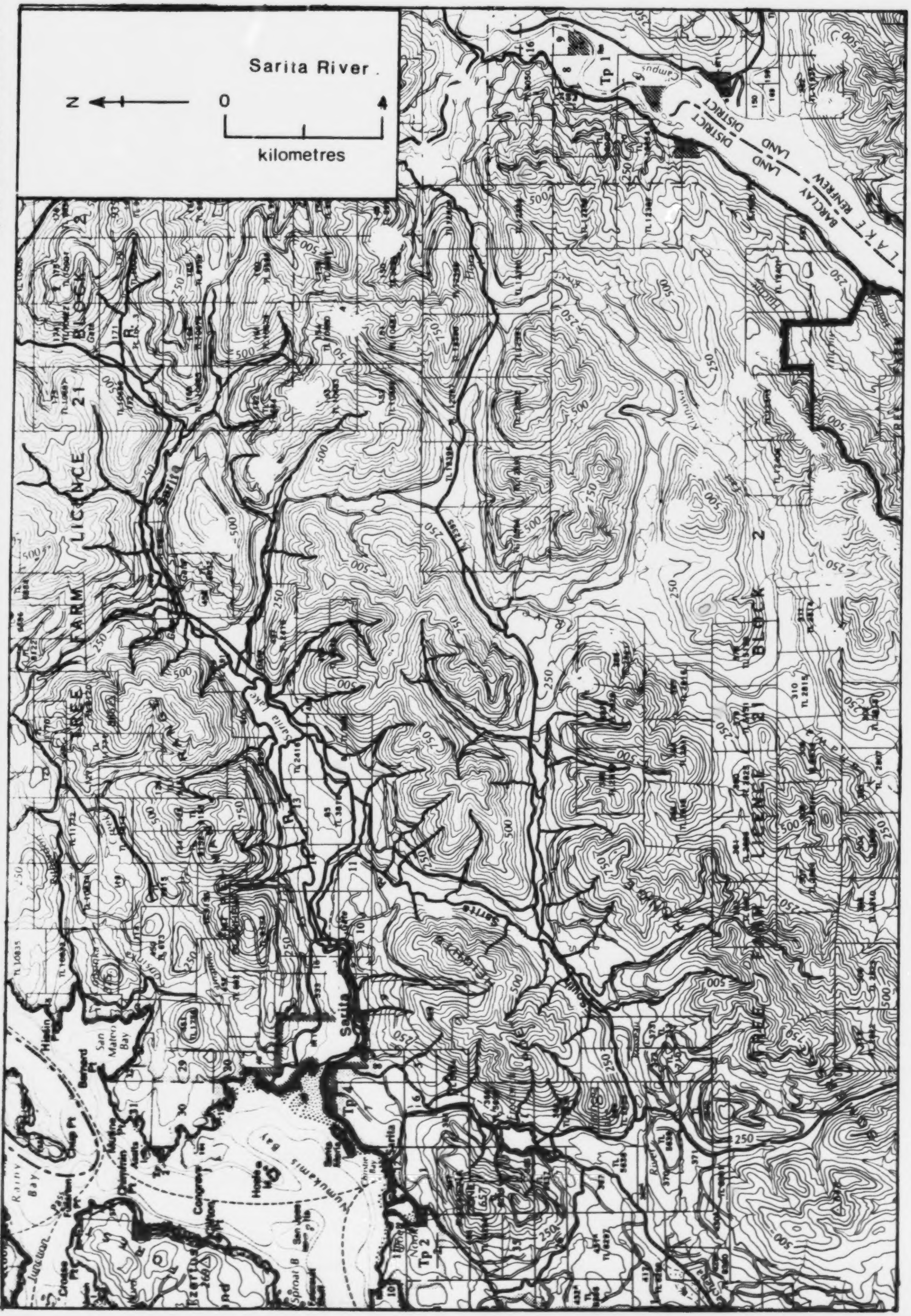
GENERAL REMARKS

ESCAPEMENT RECORD FOR (Sandy Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48				200		
49				75		
50				400		
51				750		
52				75		
53				75		
54				200		
55				200		
56				200		
57				400		
58				400		
59				400		
60				200		
61				200		
62				25		
63				25		
64				75		
65				200		
66				200		
67				200		
68				400		
69				75		
70				400		
71				200		
72				400		
73				200		
74				400		
75				400		
76				450		
77				280		
78				200		
79						
80						
81						
82						
83						
84						
85						

TIMING:						
ARRIVE				OCT		
START				E. NOV		
PEAK				M. NOV		
END				L. NOV		

REMARKS


Sarita River.
N
0
4
kilometres
TREE FARM LICENCE 21
BLOCK 2
TREE FARM LICENCE 21
BLOCK 2
BARCLAY LAND DISTRICT
RENFREW LAND DISTRICT
LAKE
Sarita
Sarita L.
Numukamis Bay
San Mateo Bay
Rainy Bay
Tp 1
Tp 2
Tp 4
500
250

NAME OF STREAM SARITA RIVER

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows SW. and NW. into Numukamis Bay, E. of Tzartus Is., Barclay Dist. POSITION 48 125 NE

LENGTH 9.7 km WIDTH m DRAINAGE 160.6 km²

COMPOSITION: BEDROCK BOULDER COARSE FINE

SILT & SAND UNCLASSIFIED

PERCENT GRADIENT	
0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
>1.00	

WETTED AREA m² SPAWNING AREA m²

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Impassable falls at 9.7 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	to falls at 9.7 km
COHO	throughout
CHUM	mainly throughout north fork
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

- 1949. This stream has very good spawning gravel.
- 1974. Logging is taking place in this watershed.
- 1978. This system under Salmon Enhancement studies.

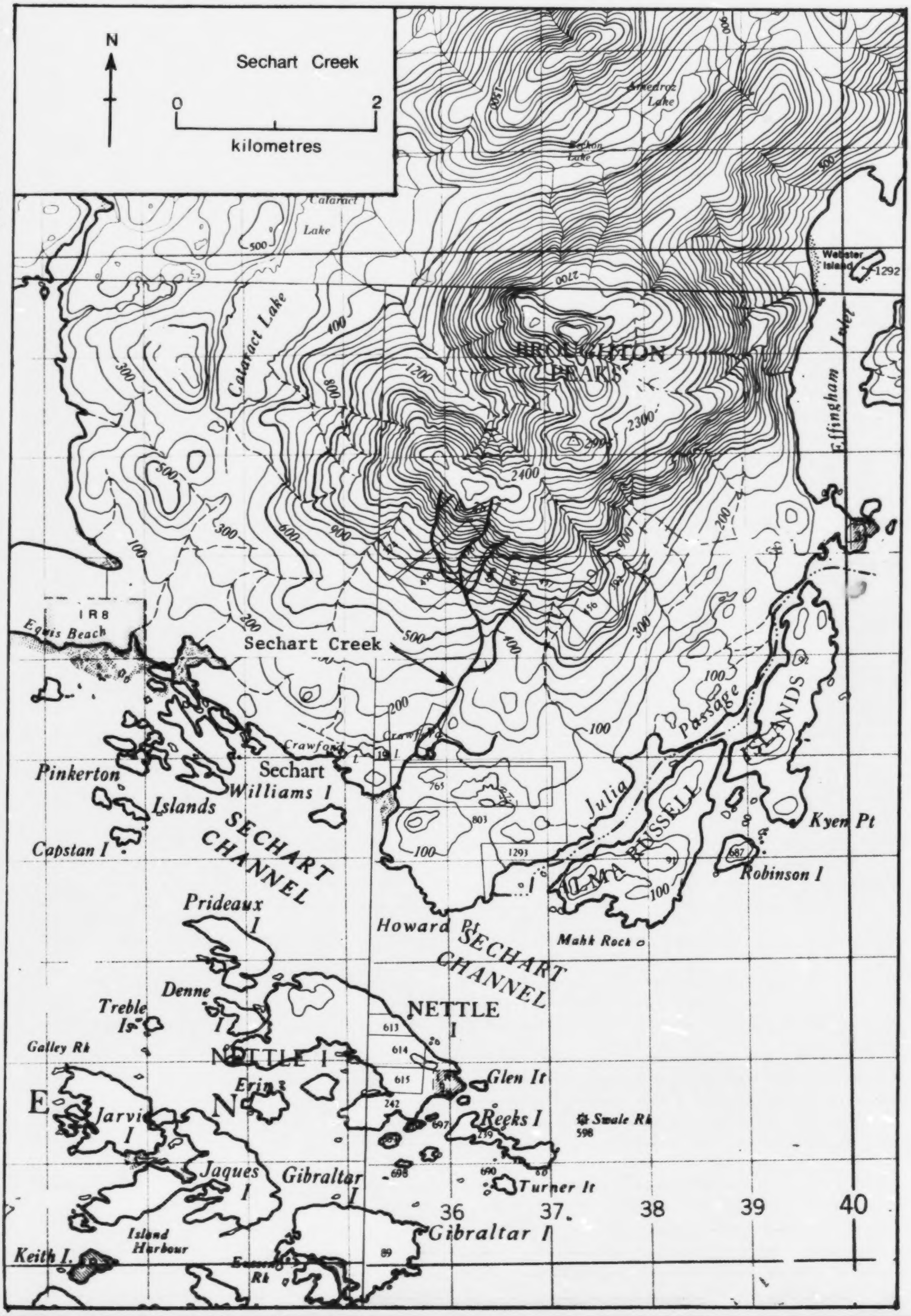
ESCAPEMENT RECORD FOR SARITA RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48		200	750	35000		
49		400	1500	35000		
50		1500	400	35000		
51		75	15000	7500		
52		400	1500	15000	1500	
53		750	400	15000	N/O	
54		750	400	75000	25	400
55		200	400	15000	N/O	UNK
56		200	400	35000	400	400
57		200	200	35000	N/O	400
58		200	750	35000	750	400
59		200	400	15000	25	400
60		200	200	15000	200	400
61		400	750	7500		400
62		200	400	15000	25	400
63		750	200	7500		400
64		400	750	35000	N/O	750
65		750	400	15000		UNK
66		750	400	35000		UNK
67		400	1500	40000		UNK
68		750	1500	75000		UNK
69		400	750	65000		UNK
70		400	1500	35000		750
71	25	600	1500	50000		400
72		400	400	70000		UNK
73		75	1500	50000		
74		700	750	55000	100	UNK
75		400	1500	40000		
76		475	450	72000	250	
77		390	650	38000	N/O	
78		25	750	67000	40	
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE		L. SEP	OCT	E. OCT		
START		OCT	OCT	M. OCT		
PEAK		OCT	NOV	L. OCT		
END		L. OCT	DEC	L. NOV		

REMARKS


N
Sechart Creek
0
2
kilometres
Amedroz Lake
Sechon Lake
Cataract Lake
Cataract Lake
Webster Island
1292
BROUGHTON PEAKS
Effingham Inlet
IR8
Equis Beach
Sechart Creek
Crawford L
Sechart
Pinkerton Islands
Williams I
Capstan I
SECHART CHANNEL
Julia Passage
ALMA RUSSELL ISLANDS
Kyen Pt
Robinson I
Prideaux I
Howard Pt
SECHART CHANNEL
Mahk Rock
Treble Is
Denne I
NETTLE I
NETTLE I
Galley Rk
Erin I
Glen It
Jarvis I
Reeks I
Swale Rk
Jaques I
Gibraltar I
Turner It
Gibraltar I
Island Harbour
Keith I.
Eussen Rk
36
37.
38
39
40
300
500
1200
800
400
2700
2300
2900
2400
900
600
300
100
200
500
400
300
100
200
100
200
100
100
765
803
1293
613
614
615
242
697
598
698
690
89

NAME OF STREAM (Sechart Creek)

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows SW. into Sechart Chan., N. of Broken Gp., Barclay Dist.

POSITION 48 125 NE

LENGTH 1.6 km WIDTH 3 m DRAINAGE 2.6 km^2

COMPOSITION: BEDROCK 15% BOULDER 10% COARSE 30% FINE 30%

SILT & SAND 10% UNCLASSIFIED 5%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.2 km
0.25 - 0.50	
0.50 - 0.75	0.3 - 1.6 km
0.75 - 1.00	
>1.00	0.2 - 0.3 km

WETTED AREA 4800 m^2 SPAWNING AREA 2900 m^2

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Passable cascades at 270 m.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	throughout
CHUM	to cascades at 270 m
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

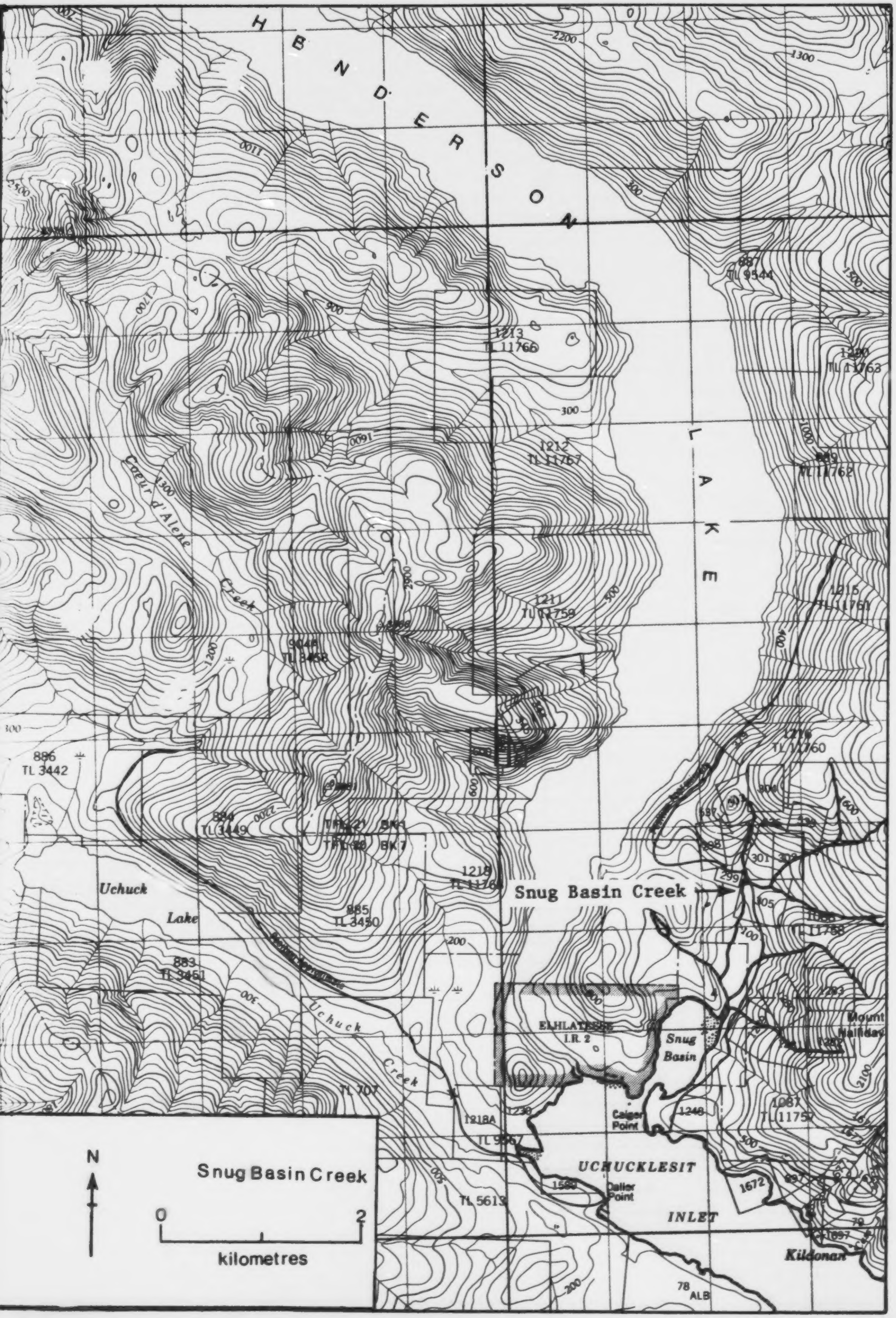
ESCAPEMENT RECORD FOR (Sechart Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48				200		
49				75		
50				750		
51				750		
52				25		
53				400		
54			25	400		
55			N/0	200		
56				25		
57				400		
58				200		
59				200		
60				25		
61				75		
62				25		
63				200		
64				75		
65			25	25		
66			25	400		
67				75		
68			75	200		
69			75	400		
70			25	200		
71				25		
72				200		
73			75	200		
74			75	75		
75			25	50		
76			30	140		
77			35	80		
78			30	100		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			OCT	OCT		
START			L. OCT	OCT		
PEAK			NOV	L. OCT		
END			DEC	NOV		

REMARKS


HENDERSON
LAKE
Coeur d'Alene Creek
Uchuck Lake
Uchuck Creek
Snug Basin Creek
ELHLATEESE I.R. 2
Snug Basin
Caiger Point
Ollier Point
UCHUCKLESIT
INLET
Kildonan
Mount Halliday
887 TL 9544
1213 TL 11766
1212 TL 11767
1211 TL 11759
1220 TL 11763
889 TL 11762
1215 TL 11761
1216 TL 11760
1218 TL 11764
886 TL 3442
884 TL 3449
885 TL 3450
883 TL 3451
904P TL 3458
TFL 21 BK4
TFL 22 BK7
TL 707
1218A TL 9667
TL 5613
1580
1248
1087 TL 11757
1088 TL 11758
1672
78 ALB
N
0
2
kilometres
Snug Basin Creek

NAME OF STREAM (Snug Basin Creek)

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows S. into Snug Basin, head of Uchucklesit Inlet, Clayoquot Dist. POSITION 49 125 SE

LENGTH 1.6 km WIDTH 3.7 m DRAINAGE 5.2 km²

COMPOSITION: BEDROCK 10% BOULDER 10% COARSE 35% FINE 35%

SILT & SAND 10% UNCLASSIFIED

PERCENT GRADIENT

0.00 - 0.25	0 - 0.2 km
0.25 - 0.50	0.2 - 0.8 km
0.50 - 0.75	
0.75 - 1.00	
>1.00	0.8 - 1.6 km

WETTED AREA 5900 m² SPAWNING AREA 4100 m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Impassable 7.6 m falls at 1.6 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to falls at 1.6 km
CHUM	- to .5 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

- Logging has been taking place in this watershed since 1954.

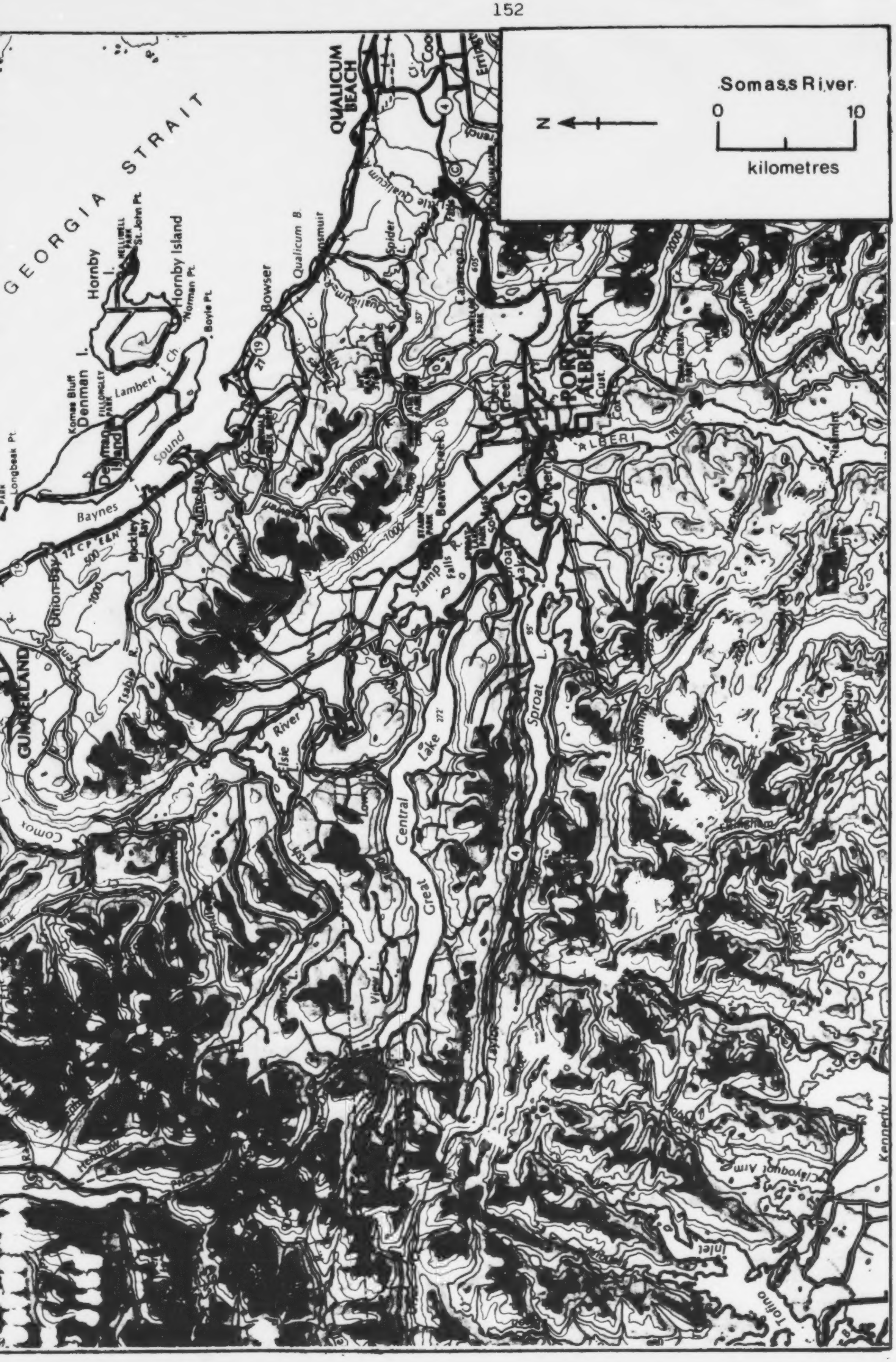
ESCAPEMENT RECORD FOR (Snug Basin Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48			400	3500		
49			400	1500		
50			400	1500		
51			400	3500		
52			400	750		
53			25	1500		
54			25	3500		25
55			75	750		25
56			25	400		25
57			25	1500		UNK
58			75	1500		25
59			25	200		25
60			25	200		25
61			25	75		25
62			25	75		UNK
63			25	25		25
64			25	75		25
65			25	25		UNK
66			25	400		
67			25	200		
68			75	1500		
69			15	750		
70			75	750		
71			25	200		
72			25	1500		
73			200	1500		
74			150	2500		
75			25	900		
76			40	1700		
77			60	550		
78			80	750		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			L. OCT	E. OCT		
START			NOV	M. OCT		
PEAK			NOV	L. OCT		
END			DEC	NOV		

REMARKS


Somass River
0
10
kilometres
N
GEORGIA STRAIT
QUALICUM BEACH
Hornby Island
Hornby I.
St. John Pt.
Norman Pt.
Bowle Pt.
Denman I.
Denman Island
Komas Bluff
Lambert Ch.
Longbeak Pt.
Baynes Sound
Buckley Bay
Fanny Bay
Bowser
Qualicum B.
Dunsmuir
Union Bay
CUMBERLAND
Comox
Tsable R.
Elsie River
Great Central Lake
View L.
Spider L.
Cameron
Cherry Creek
PORT ALBERNI
ALBERNI INLET
Beaver Creek
Stamp Falls
Sproat L.
Taylor
Kennedy L.
Clayoquot Arm
Tofino Inlet
Errington

NAME OF STREAM SOMASS RIVER

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows SE. and S. through Alberni into Alberni Inlet, Alberni Dist.

POSITION 49 124 SW

LENGTH ______ km WIDTH ______ m DRAINAGE 1284.6 km^2

COMPOSITION: BEDROCK ______ BOULDER ______ COARSE ______ FINE ______

SILT & SAND ______ UNCLASSIFIED ______

PERCENT GRADIENT	
0.00 - 0.25	
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
> 1.00	

WETTED AREA ______ m^2 SPAWNING AREA ______ m^2

DISCHARGE (m^3/s) mean = 117.5 max = 979.8 (75/11/05) min = 30.9 (76/10/07)

TEMPERATURE (°C) ______

BARRIERS OR POINTS OF DIFFICULT ASCENT
see General Remarks

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	- to Sproat & Great Central Lakes and their tributaries
CHINOOK	- throughout the system
COHO	- throughout the system
CHUM	- in Somass River
PINK (ODD YEAR)	
PINK (EVEN YEAR)	- in Somass River
STEELHEAD	- throughout the system

POTENTIAL OF INACCESSIBLE PORTION OF STREAM ______

GENERAL REMARKS

Watershed - General: The Somass River system includes the Somass River, the Sproat Lake and River system and the Great Central Lake - Stamp River system. The mainstem Somass is 7.2 km long and branches to form the Sproat and Stamp Rivers.

Sproat Lake has an area of approximatley 44 km^2. Its main tributary is the Taylor River. With the aid of a fishway, the Sprcat River system is accessible for 48 km.

Great Central Lake has an area of approximately 52 km^2. It is fed mainly by the Drinkwater and McBride Rivers and drained by the Stamp River. The main tributary to the Stamp River is the Ash River. With the aid of fishways, the Great Central Lake system is accessible for 55 km.

The Somass River system also has approximately 320 km of smaller tributaries

GENERAL REMARKS (cont.) - Somass River

which support salmon populations.

Special Facilities

- Sproat River falls are located at approximately 2 km (immediately downstream of the highway bridge). In 1903 some rock blasting was done to improve salmon migration. In 1951, a vertical slot fishway was constructed. It is 49 m long and has 15 baffles.
- In 1927 a fishway was constructed at the Stamp River falls located at approximately 8 km. In 1954, this was replaced with a vertical slot fishway which is 149 m long and has 37 baffles.
- Great Central Lake dam at the head of Robertson Creek channel was bypassed with a 19 baffle vertical slot fishway constructed in 1957 by MacMillan Bloedel Ltd.
- In 1960, the Robertson Creek spawning channel was opened. The purpose of the channel was to a) work towards a solution of fisheries problems associated with hydro-electric power development, b) increase coho and chinook runs to Robertson Creek, and c) to introduce runs of pink salmon the the Somass River system. In the past few years it has mainly become a research - hatchery style facility directed towards the enhancement of coho, chinook and steelhead.
- In 1970, the Fisheries Research Board of Canada began a lake enrichment program on Great Central Lake to increase the sockeye production.

References - Great Central Lake

Barraclough, W. E. and D. Robinson. 1972. The fertilization of Great Central Lake. III. Effect on juvenile sockeye salmon. U. S. Nat. Mar. Fish. Serv. Fish. Bull. 70: 37 - 48.

LeBrasseur, R. J. and O. D. Kennedy. 1972. The fertilization of Great Central Lake. II. Zooplankton standing stock. U. S. Nat. Mar. Fish. Serv. Fish. Bull. 70: 25- 36.

LeBrasseur, R. J., C. D. McAllister, W. E. Barraclough, O. D. Kennedy, J. Manzer, D. Robinson and K. Stevens. 1978. Enhancement of sockeye salmon (*Oncorhynchus nerka*) by lake fertilization in Great Central Lake: summary report. J. Fish. Res. Bd. Can. 35(12): 1580 - 1596.
(The paper includes a complete bibliography on studies related to the Great Central Lake fertilization program.)

Parsons, T. R., K. Stephens and M. Takahashi. 1972. The fertilization of Great Central Lake. I. Effect on primary production. U. S. Nat. Mar. Fish. Serv. Fish. Bull. 70: 13- 23.

Somass River - General

- 1956. Lampreys are present in the river in large numbers.
- 1963. Heavy logging activities are being carried out in the watershed.
- 1967. Pulp mill effluent and sewage from the city of Port Alberni are seriously polluting the Somass River estuary.
- 1976. There was a major fish kill in Kitsucksis Creek following a heating fuel spill.
- 1978. Factors which are causing a strain on this watershed include: logging (past & present), water use for industry and domestic uses, illegal fishing and industrial activity in the estuary area.
- 1978. There were severe low water levels this year. A concrete dam was constructed on the Sproat River to channelize a sufficient flow through the

GENERAL REMARKS (cont.) - Somass River

fishway.

- 1978. A logging truck accident resulted in the dumping of approximately 115 litres of diesel fuel into the Taylor River.

References:

Canada, Dept. of Fisheries. 1957. Salmon spawning ground survey on the Somass River system - 1956. 35 pp.

Canada, Dept. of Fisheries. 1960. Descriptive notes on other fish facilities on the Somass River system. 2pp.

Ellis, D. V. 1962. Interim report on the ecology and behaviour of juvenile salmonids in the Somass River system, British Columbia. Nanaimo, Fish. Res. Bd. Can. MS Rept. 720. 12 pp.

Kask, B. A. and Robert R. Parker. 1972. Observations on juvenile chinook salmon in the Somass River estuary Port Alberni, B. C. Fish. Res. Bd. Can. Tech. Rept. 308. 15 pp.

ESCAPEMENT RECORD FOR SOMASS RIVER

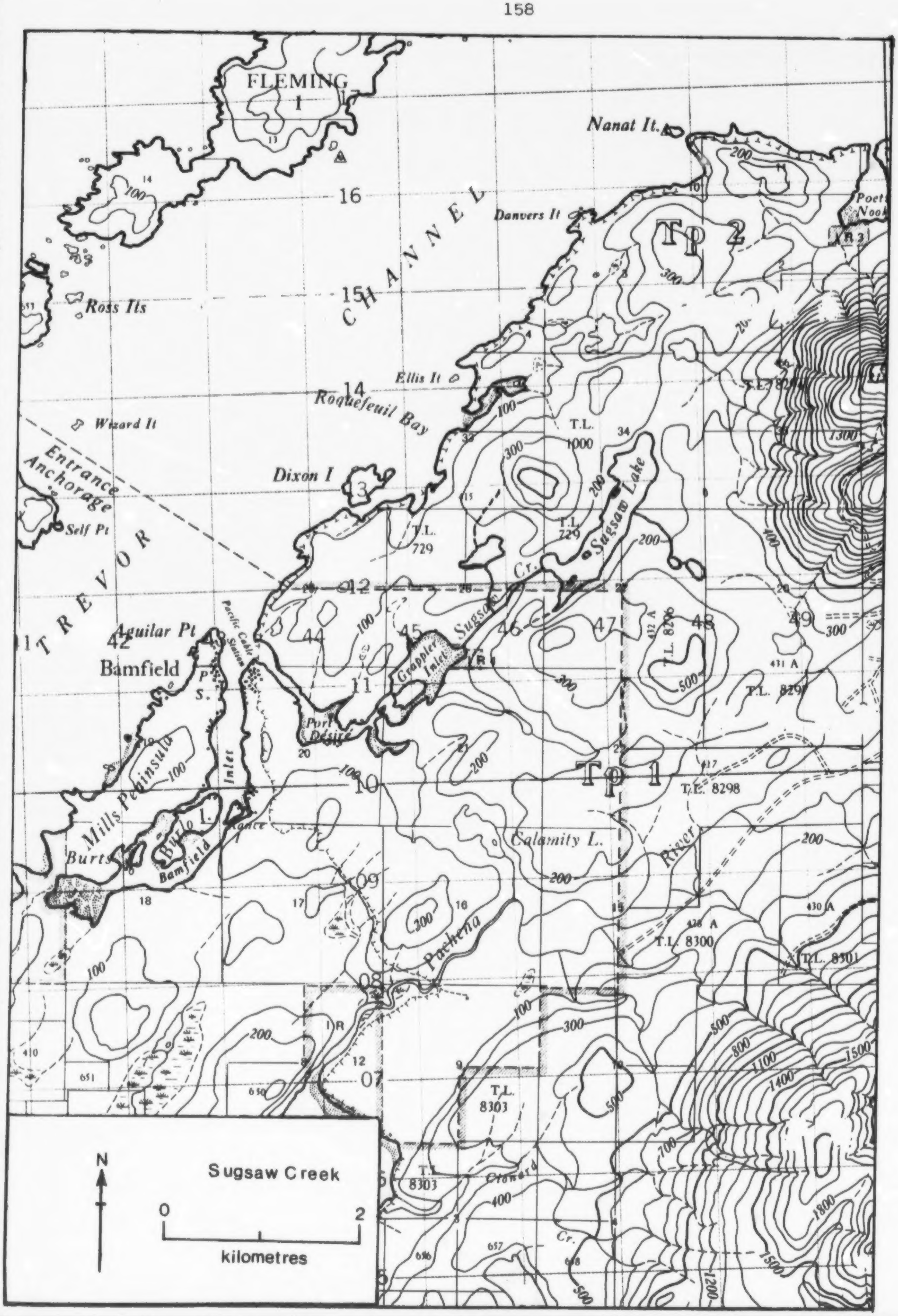
YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48	50000	7500	40000	750		400
49	200000	7500	15000	1500		750
50	35000	7500	35000	7500		1500
51	100000+	7500	35000	15000		750
52	15000	7500	100000+	750		1500
53	35000	7500	35000	7500		1500
54	35000	7500	35000	7500		3500
55	35000	7500	35000	3500		3500
56	7500	15000	35000	1500	75	3500
57	100000+	7500	15000	7500		3500
58	35000	15000	35000	7500	400	3500
59	35000	7500	35000	3500	N/O	3500
60	35000	7500	15000	1500	400	3500
61	35000	7500	35000	3500	7	3500
62	35000	7500	35000	3500	750	3500
63	35000	7500	35000	1500	3500	3500
64	35000	15000	35000	750	750	3500
65	35000	7500	35000	1500	3500	3500
66	75000	7500	75000	1500	1500	UNK
67	75000	15000	75000	1500	200	UNK
68	99000	12500	60000	3500	400	UNK
69	115000	13000	35000	2500	25	UNK
70	36000	8500	120000	3000	100	1500
71	67000	13500	85000	1500	200	1500
72	137000	9000	30000	4000	400	UNK
73	261000	11000	130000	7000		
74	93000	12500	125000	3500	400	UNK
75	191000	15000	40000	750	100	
76	148322	13000	35000	4500	500	UNK
77	293000	12300	31200	500	N/O	UNK
78	151978	9000	32000	300	N/O	UNK
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE	MAY	AUG	AUG	L. OCT	JUL	
START	L. OCT	OCT	OCT	L. OCT	SEP	
PEAK	NOV	NOV	NOV	NOV	SEP	
END	L. NOV	DEC	DEC	NOV	OCT	

REMARKS

The above escapements include the tributaries to the Somass River.


Sugsaw Creek
N
0
2
kilometres
FLEMING I
Nanat It.
Danvers It
CHANNEL
TREVOR
Ross Its
Ellis It
Roquefeuil Bay
Wizard It
Entrance Anchorage
Self Pt
Dixon I
Aguilar Pt
Bamfield
Pacific Cable Station
Grappler Inlet
Port Désiré
Mills Peninsula
Burts
Burlo I.
Bamfield Inlet
Sugsaw Lake
Sugsaw Cr.
Calamity L.
Pachena
River
Cloneard Cr.
Poett Nook
Tp 2
Tp 1
T.L. 1000
T.L. 729
T.L. 729
T.L. 8296
T.L. 8297
T.L. 8298
T.L. 8300
T.L. 8301
T.L. 8303
T.L. 8303
T.L. 8294
I.R. 3
I.R. 1
I.R.
16
15
14
12
11
10
09
08
07
42
44
45
46
47
48
49
100
200
300
400
500
800
1100
1300
1400
1500
1800
1200

NAME OF STREAM SUGSAW CREEK (Grappler Creek)

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows SW. into Grappler Inlet, E. of Bamfield Inlet, Barclay Dist.

POSITION 48 125 NE

LENGTH 0.6 km WIDTH 2.4 m DRAINAGE 6.5 km^2

COMPOSITION: BEDROCK 10% BOULDER 10% COARSE 30% FINE 30%

SILT & SAND 10% UNCLASSIFIED 10%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.3 km
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
>1.00	0.3 - 0.6 km

WETTED AREA 1400 m^2 SPAWNING AREA 900 m^2

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Impassable 9.1 m falls at 0.6 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to falls at 0.6 km
CHUM	- to falls at 0.6 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

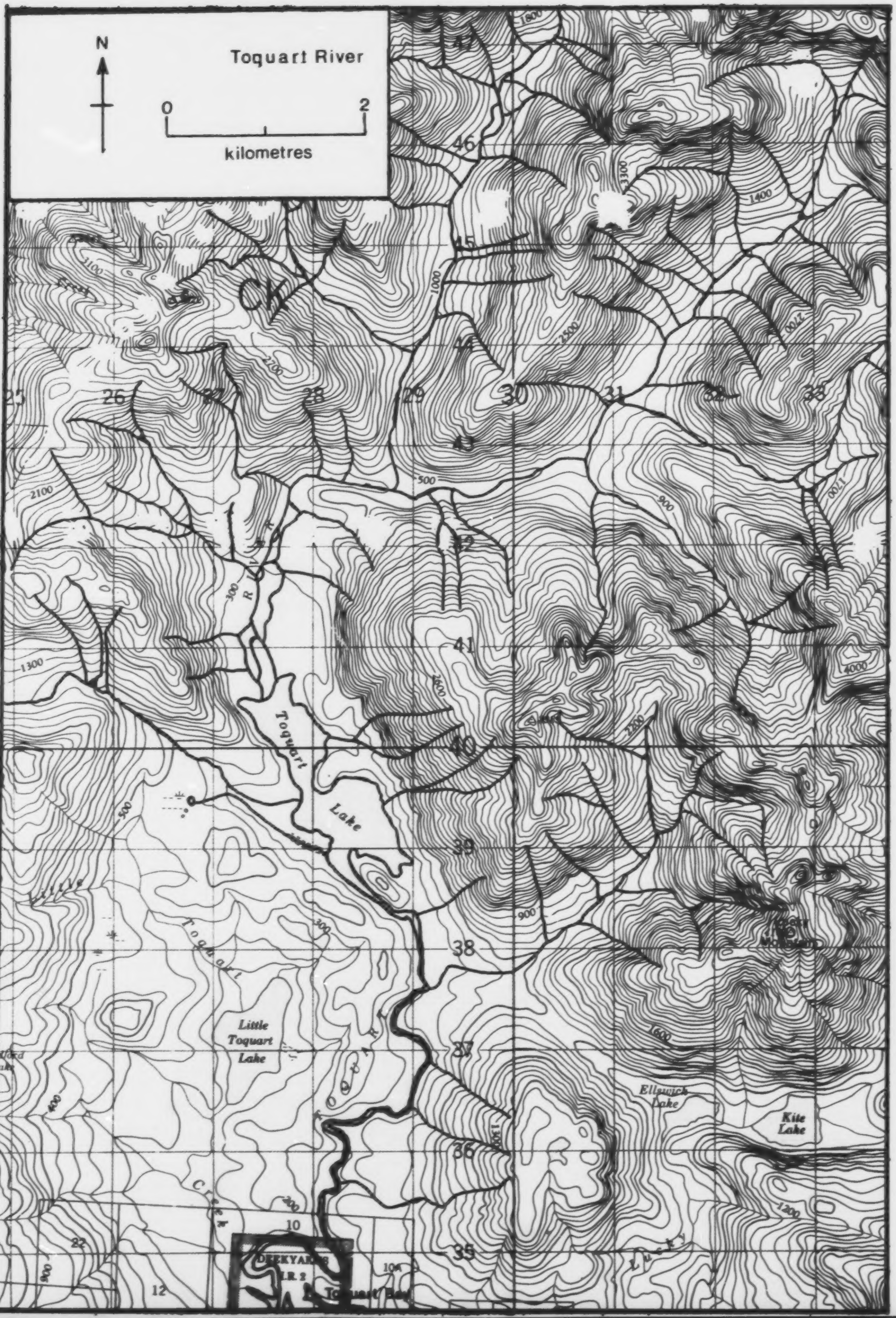
ESCAPEMENT RECORD FOR SUGSAW CREEK (Grappler Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48			750	750		
49			750	400		
50				3500		
51				3500		
52				3500		
53				3500		
54			25	3500		25
55			25	7500		25
56			25	3500		25
57			25	3500		25
58			25	3500		25
59			25	3500		25
60			25	1500		25
61			25	1500		25
62			25	1500		
63			25	1500		25
64			25	1500		25
65			25	750		UNK
66			25	1500		UNK
67			75	750		
68			200	1500		
69			75	3500		
70			75	400		
71			75	1500		
72			25	850		
73			200	1500		
74			85	4000		
75			4	4000		
76			50	4000		
77			160	6000		
78			140	14000		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			OCT	OCT		
START			NOV	OCT		
PEAK			NOV	M. NOV		
END			DEC	L. NOV		

REMARKS


N
Toquart River
0
2
kilometres
47
46
45
44
43
42
41
40
39
38
37
36
35
25
26
27
28
29
30
31
32
33
CK
Toquart Lake
Little Toquart Lake
Ellswick Lake
Kite Lake
Toquart Bay
Creek
Little
Toquart
10
12
22
104
1000
1400
1600
2100
2200
2500
2600
2700
3100
4000
1300
1200
900
500
300
400
200

NAME OF STREAM TOQUART RIVER

CONSERVATION DISTRICT 4 STATISTICAL AREA 49 125 SE

LOCATION OF MOUTH Flows S. into Toquart Bay, Clayoquot Dist.

POSITION 49 125 SE

LENGTH 11.6 km WIDTH 9 - 18 m DRAINAGE 51.8 km²

COMPOSITION: BEDROCK 15% BOULDER 15% COARSE 20% FINE 30%

SILT & SAND 10% UNCLASSIFIED 10%

PERCENT GRADIENT

0.00 - 0.25	0 - 2.4 km; 6.4 - 8.5 km
0.25 - 0.50	2.4 - 4 km; 4.8 - 6.4 km
0.50 - 0.75	
0.75 - 1.00	
>1.00	4 - 4.8 km; 8.5 - 11.6 km

WETTED AREA 157000 m² SPAWNING AREA 78000 m²

DISCHARGE (m³/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Passable rock slide and cascades at 4 km.

SPAWNING DISTRIBUTION

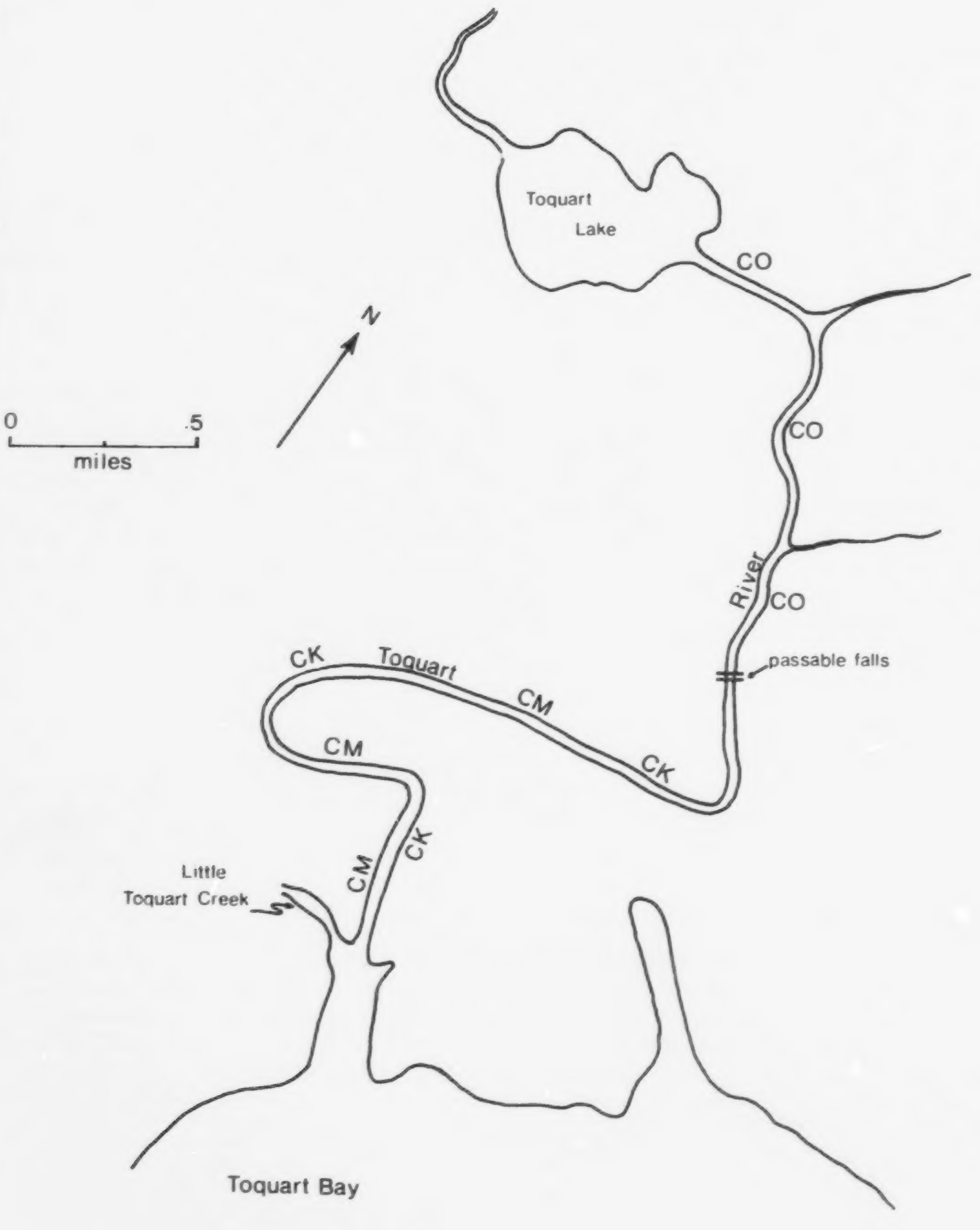
SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	- above cascades
COHO	- throughout
CHUM	- to cascades at 4 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	- throughout

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

- 1955. The permanent rock slide at 4 km was improved by blasting a narrow channel between the rocks.
- Noranda Mining has a pumphouse on the Lower Toquart River to supply water to their iron ore mill at Toquart Bay.
- Logging operations are being carried out in the watershed.

Sketch of Toquart River Spawning Grounds (1969)


Toquart
Lake
CO
N
0
.5
miles
CO
River
CO
passable falls
CK
Toquart
CM
CM
CK
CK
CM
Little
Toquart Creek
Toquart Bay

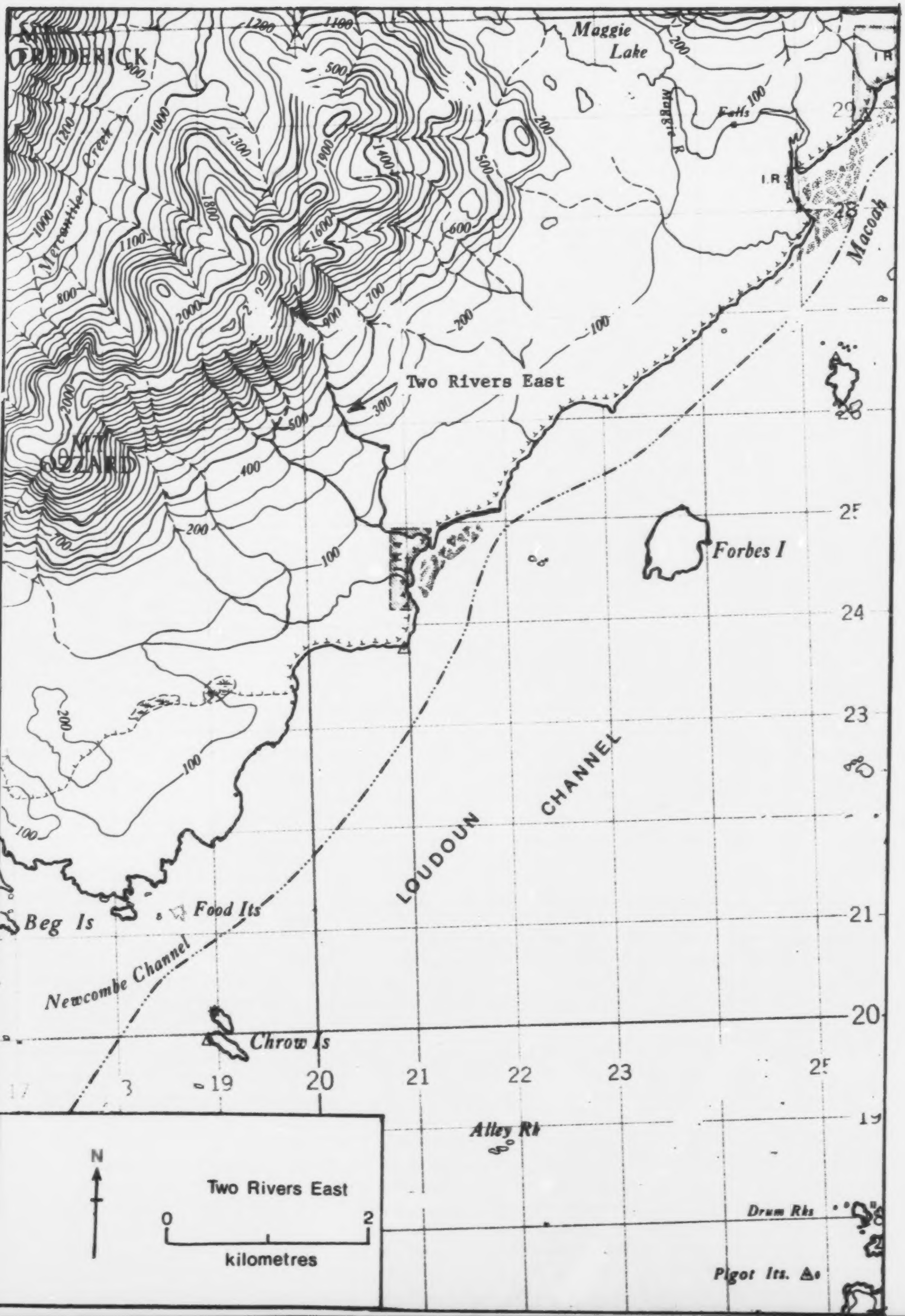
ESCAPEMENT RECORD FOR TOQUART RIVER

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48		25	1500	15000		400
49		75	1500	15000		200
50		750	3500	35000		400
51		400	3500	35000		400
52		200	3500	15000	1500	400
53		400	7500	35000	N/O	400
54		750	35000	75000	N/O	400
55		400	7500	3500		400
56		200	3500	7500	200	400
57		200	3500	15000		400
58		200	7500	35000	200	400
59		75	3500	15000	N/O	400
60		200	3500	7500	200	400
61		200	3500	7500	N/O	400
62		75	3500	7500	25	400
63		25	3500	1500	25	400
64		25	3500	7500	N/O	400
65		25	3500	3500	N/O	UNK
66		200	3500	15000	N/O	UNK
67		25	3500	25000	N/O	UNK
68		N/O	3500	7500		UNK
69		N/O	750	5000		UNK
70		25	3500	11000		1500
71		25	1500	5000		400
72		25	1500	18000		UNK
73		75	3500	10000		UNK
74		40	750	15000		
75		75	1500	20000		UNK
76		45	1200	19000	150	
77		60	1950	17000	N/O	UNK
78		50	2000	4500		UNK
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE		SEP	SEP	OCT		
START		OCT	OCT	OCT		
PEAK		OCT	NOV	L. OCT		
END		NOV	DEC	NOV		

REMARKS


MT FREDERICK
Mercantile Creek
Maggie Lake
Maggie R
Falls
I.R.
Macoah
Two Rivers East
MT OZZARD
Forbes I
LOUDOUN CHANNEL
Beg Is
Food Its
Newcombe Channel
Chrow Is
Alley Rk
Drum Rks
Pigot Its.
N
Two Rivers East
0
2
kilometres

NAME OF STREAM (Two Rivers East, Twin Rivers East)

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows SE. into Loudoun Chan., W. of Forbes Is., Barclay Dist.

POSITION 48 125 NE

LENGTH 2.4 km WIDTH 3.0 m DRAINAGE 7.8 km^2

COMPOSITION: BEDROCK ____ BOULDER 15% COARSE 30% FINE 30%

SILT & SAND 20% UNCLASSIFIED 5%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.3 km
0.25 - 0.50	
0.50 - 0.75	0.3 - 0.8 km
0.75 - 1.00	
>1.00	0.8 - 2.4 km

WETTED AREA 7200 m^2 SPAWNING AREA 4320 m^2

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

There are many passable log jams throughout the system.

Passable cascades at 2.4 km but insufficient water above.(headwater area)

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- throughout
CHUM	- throughout lower 1.6 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

- This watershed has been logged off and this has resulted in unstable water conditions.

ESCAPEMENT RECORD FOR (Two Rivers East, Twin Rivers East)

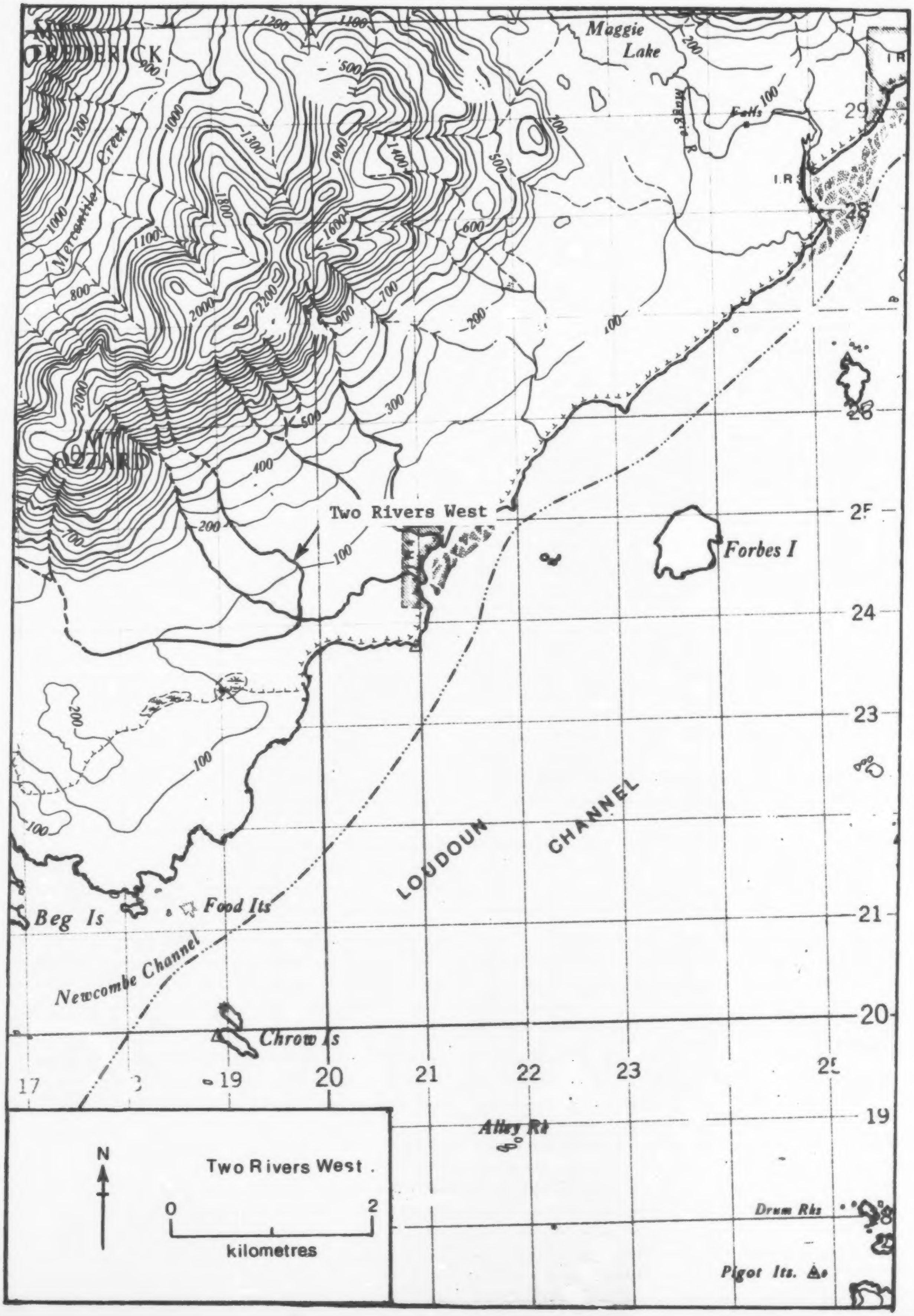
YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48						
49						
50						
51						
52						
53						
54			25	7500		
55			25	200		
56			25	3500		
57			25	3500		
58			25	7500		
59			25	3500		
60			25	400		
61			25	400		
62			25	400		
63			25	750		
64			25	400		
65			25	400		
66			75	3500		
67			75	200		
68			75	750		
69			400	3500		
70			200	3500		
71			75	150		
72			75	3500		
73			200	1500		
74			75	3500		
75			75	750		
76			75	700		
77			85	500		
78			100	50		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			OCT	OCT		
START			NOV	OCT		
PEAK			NOV	L. OCT		
END			DEC	NOV		

REMARKS

Escapements prior to 1954 are included with Two Rivers West data.


MT FREDERICK
Maggie Lake
Maggie R
Falls
Mercantile Creek
MT OZZARD
I.R.3
Two Rivers West
Forbes I
LOUDOUN CHANNEL
Beg Is
Food Its
Newcombe Channel
Chrow Is
Alley Rk
Drum Rks
Pigot Its.
17
19
20
21
22
23
19
20
21
23
24
25
26
28
29
N
Two Rivers West.
0
2
kilometres

NAME OF STREAM (Two Rivers West, Twin Rivers West)

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows E. into Loudoun Chan., W. of Forbes Is., Barclay Dist.

POSITION 48 125 NE

LENGTH 3.2 km WIDTH 3.7 m DRAINAGE 13 km²

COMPOSITION: BEDROCK 5% BOULDER 10% COARSE 30% FINE 30%

SILT & SAND 15% UNCLASSIFIED 10%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.5 km
0.25 - 0.50	
0.50 - 0.75	0.5 - 1.9 km
0.75 - 1.00	
>1.00	1.9 - 3.2 km

WETTED AREA 12000 m² SPAWNING AREA 7100 m²

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Impassable cascades at 3.2 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- throughout
CHUM	- lower sections
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

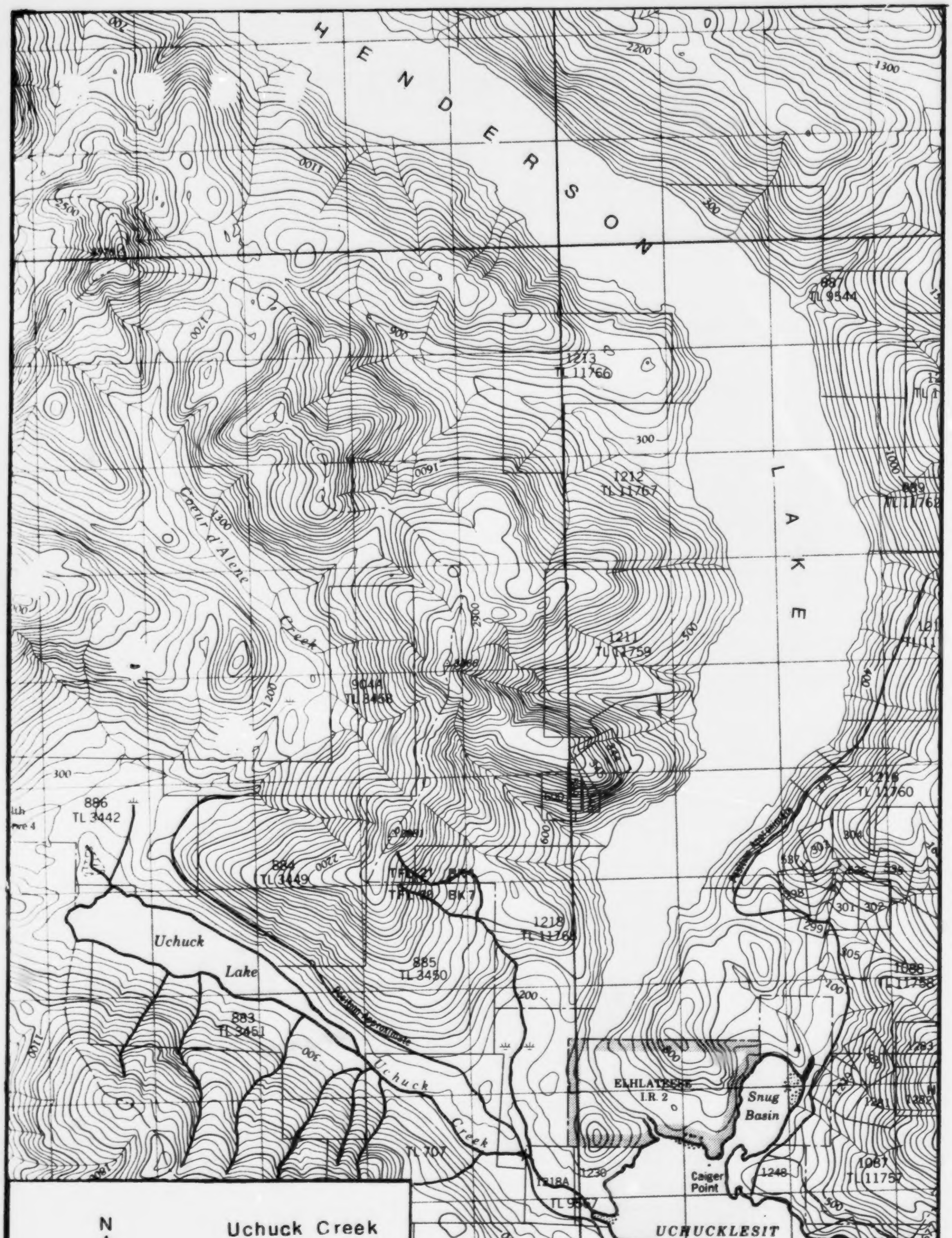
ESCAPEMENT RECORD FOR (Two Rivers West, Twin Rivers West)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48				400		
49				750		
50				7500		
51				3500		
52			75	1500		
53			75	3500		
54			25	400		
55			25	200		
56			25	75		
57			25	200		
58			25	400		
59			25	750		
60			25	75		
61			25	25		
62			25	75		
63			25	400		
64			25	200		
65			25	25		
66			75	750		
67			75	200		
68			25	400		
69			200	3500		
70			200	3500		
71			25	200		
72			200	3500		
73			400	750		
74			75	3500		
75			200	3000		
76			175	4800		
77			150	2200		
78			180	150		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			OCT	OCT		
START			L. OCT	OCT		
PEAK			NOV	L. OCT		
END			DEC	NOV		

REMARKS


Uchuck Creek
N
0
2
kilometres
HENDERSON
LAKE
Coeur d'Alene Creek
Uchuck Lake
Uchuck Creek
ELHLATEESE
I.R. 2
Snug Basin
Caiger Point
Daller Point
UCHUCKLESIT
INLET
887
TL 9544
1213
TL 11766
1212
TL 11767
889
1211
TL 11759
9044
TL 3458
1216
TL 11760
886
TL 3442
884
TL 3449
885
TL 3450
883
TL 3451
1218
TL 11765
1088
TL 11758
1087
TL 11757
TL 707
1218A
TL 9547
1236
1248
1589
TL 5613
1672
897
78
ALB
BK 7
299
301
302
305
2200
1300
300
900
1600
1700
1200
2500
2900
2300
500
600
200
800
400
100

NAME OF STREAM UCHUCK CREEK (Silver Creek)

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows SE. from Uchuck L., into Uchucklesit Inlet, Clayoquot Dist.

POSITION 49 125 SE

LENGTH 2.4 km WIDTH 6 m DRAINAGE 15.5 km^2

COMPOSITION: BEDROCK 15% BOULDER 15% COARSE 40% FINE 15%

SILT & SAND 10% UNCLASSIFIED 5%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.2 km
0.25 - 0.50	
0.50 - 0.75	0.5 - 1.9 km
0.75 - 1.00	
>1.00	0.2 0.5 km

WETTED AREA 14400 m^2 SPAWNING AREA 7900 m^2

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Passable cascades at 0.2 km.

Impassable 3.7 m falls at 2.4 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to falls at 2.4 km
CHUM	- to falls at 2.4 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

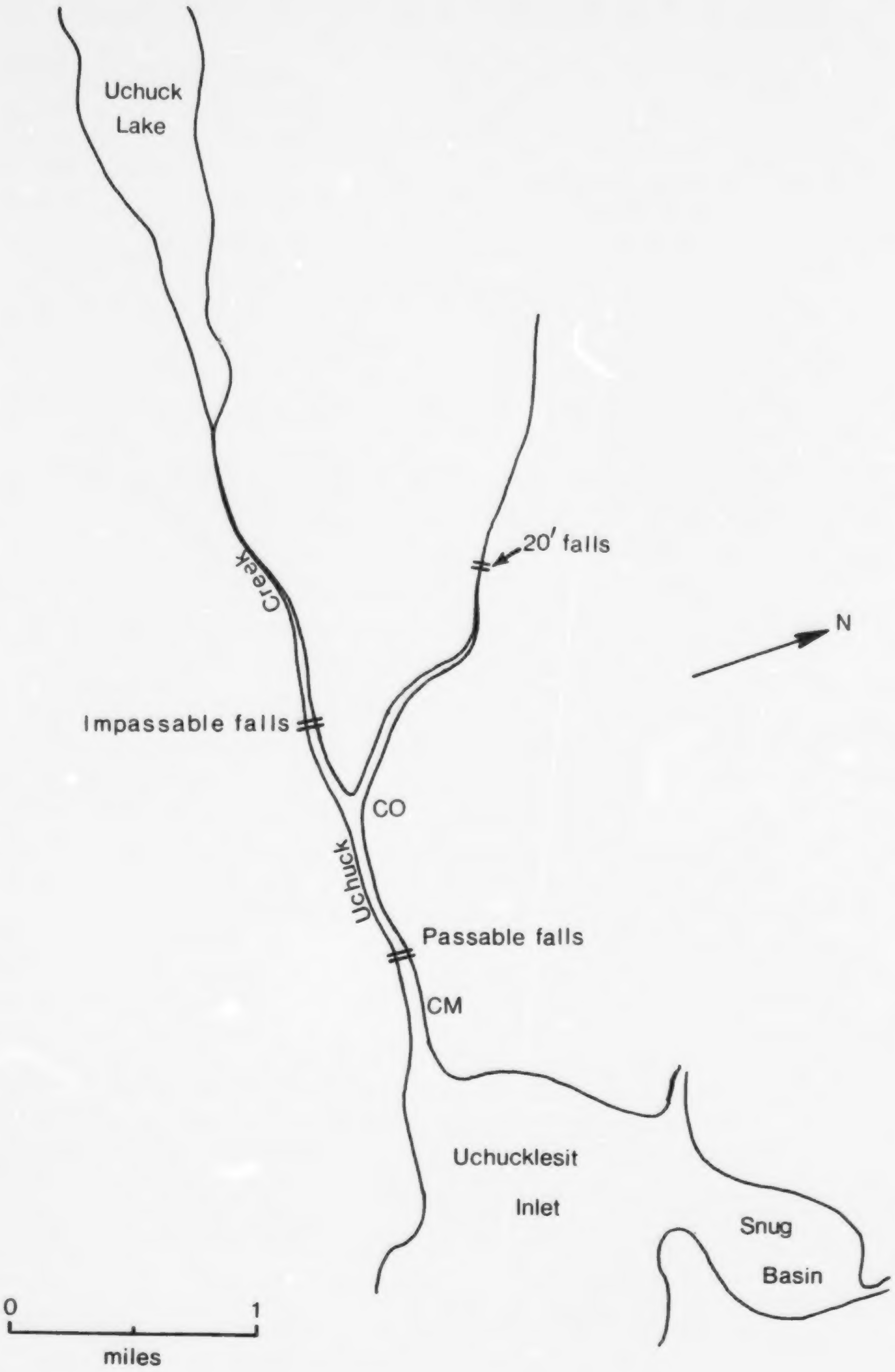
POTENTIAL OF INACCESSIBLE PORTION OF STREAM

There are approximately 1.5 km of good spawning and rearing area above the obstruction.

GENERAL REMARKS

- Logging is taking place in this watershed.

Sketch of Uchuck Creek Spawning Grounds (1969)


Uchuck Lake
20' falls
Creek
N
Impassable falls
CO
Uchuck
Passable falls
CM
Uchucklesit Inlet
Snug Basin
0
1
miles

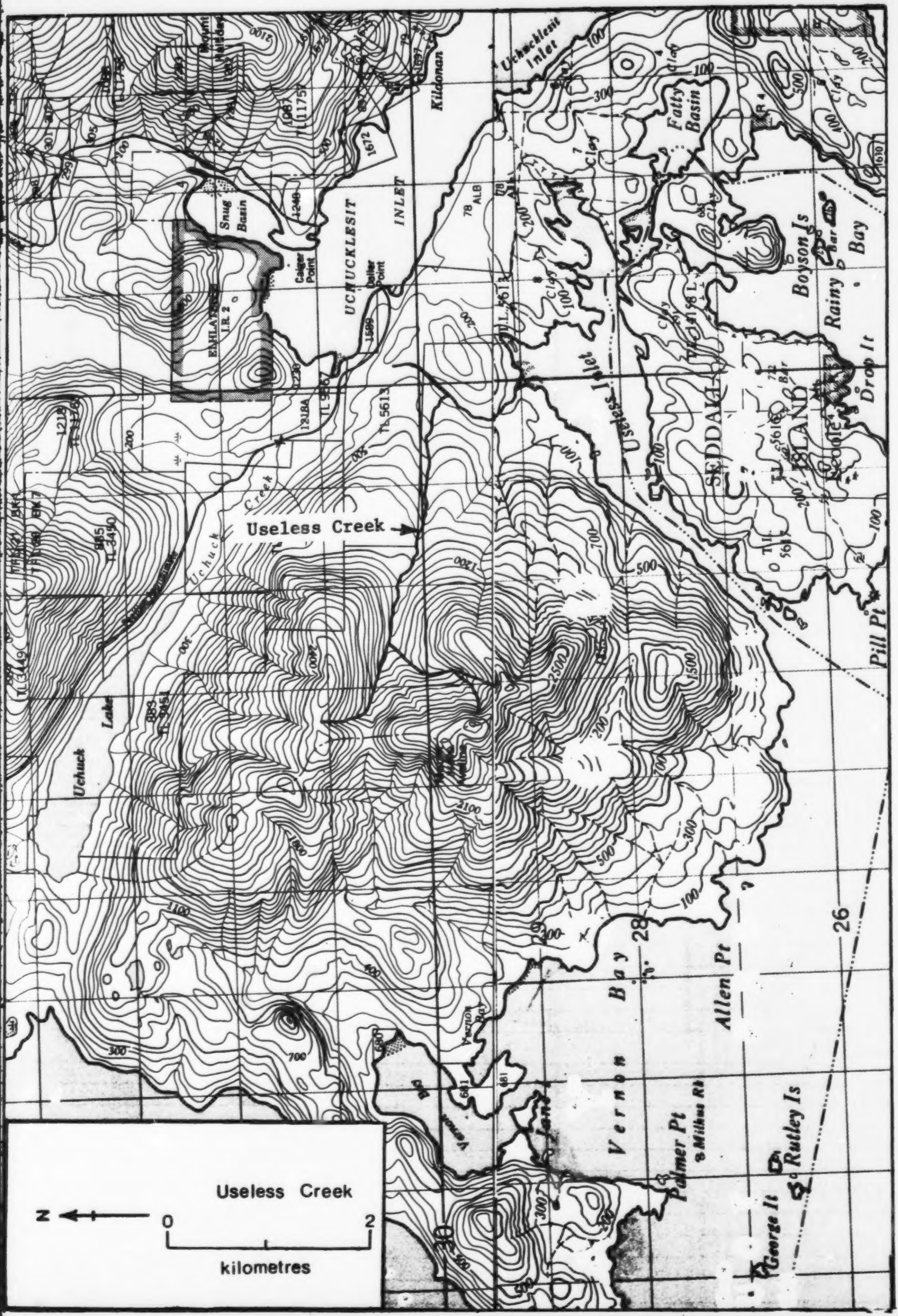
ESCAPEMENT RECORD FOR UCHUCK CREEK (Silver Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48			750	3500		400
49			1500	3500		400
50			1500	15000		200
51			400	3500		400
52		25	400	1500		25
53		25	3500	3500		75
54			750	7500		25
55			400	3500		25
56			75	3500		25
57		25	25	7500		25
58			200	7500		25
59			75	3500		75
60			25	1500		75
61			200	1500		75
62			200	3500		75
63			25	750		200
64			25	1500		25
65			75	1500		75
66			25	3500		UNK
67			25	1500		
68			200	3500		UNK
69			400	7500		
70			400	7500		75
71			400	7500		
72			200	3500		
73			400	5500		
74			400	10000		
75			200	6000		
76			325	4400		
77			390	3500		
78			500	2500		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			OCT	OCT		
START			NOV	M. OCT		
PEAK			NOV	L. OCT		
END			DEC	NOV		

REMARKS


Useless Creek
N
0
2
kilometres
Useless Creek
Uchuck Creek
Uchuck Lake
UCHUCKLESIT INLET
Uchucklesit Inlet
Kildonan
Snug Basin
Fatty Basin
Useless Inlet
SEDDALL ISLAND
Boyson Is
Rainy Bay
Drop It
Pill Pt
Vernon Bay
Allen Pt
Palmer Pt
Rutley Is
George It
Gilgar Point
Defler Point
EHHLATESE I.R. 2
Clay
28
26
30

NAME OF STREAM (Useless Creek)

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows E. and S. into Useless Inlet, N. of Seddall Is., Barclay Dist. POSITION 48 125 NE

LENGTH 0.8 km WIDTH 3 m DRAINAGE 5.2 km^2

COMPOSITION: BEDROCK 10% BOULDER 10% COARSE 35% FINE 30%

SILT & SAND 10% UNCLASSIFIED 5%

PERCENT GRADIENT	
0.00 - 0.25	0 - 0.3 km
0.25 - 0.50	
0.50 - 0.75	0.3 - 0.6 km
0.75 - 1.00	
>1.00	0.6 - 0.8 km

WETTED AREA 2400 m^2 SPAWNING AREA 1600 m^2

DISCHARGE (m^3/s)

TEMPERATURE (°C) 9.4 (August 1971 mean)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Impassable 3.6 m falls and cascades at 0.8 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to falls at 0.8 km
CHUM	- to falls at 0.8 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

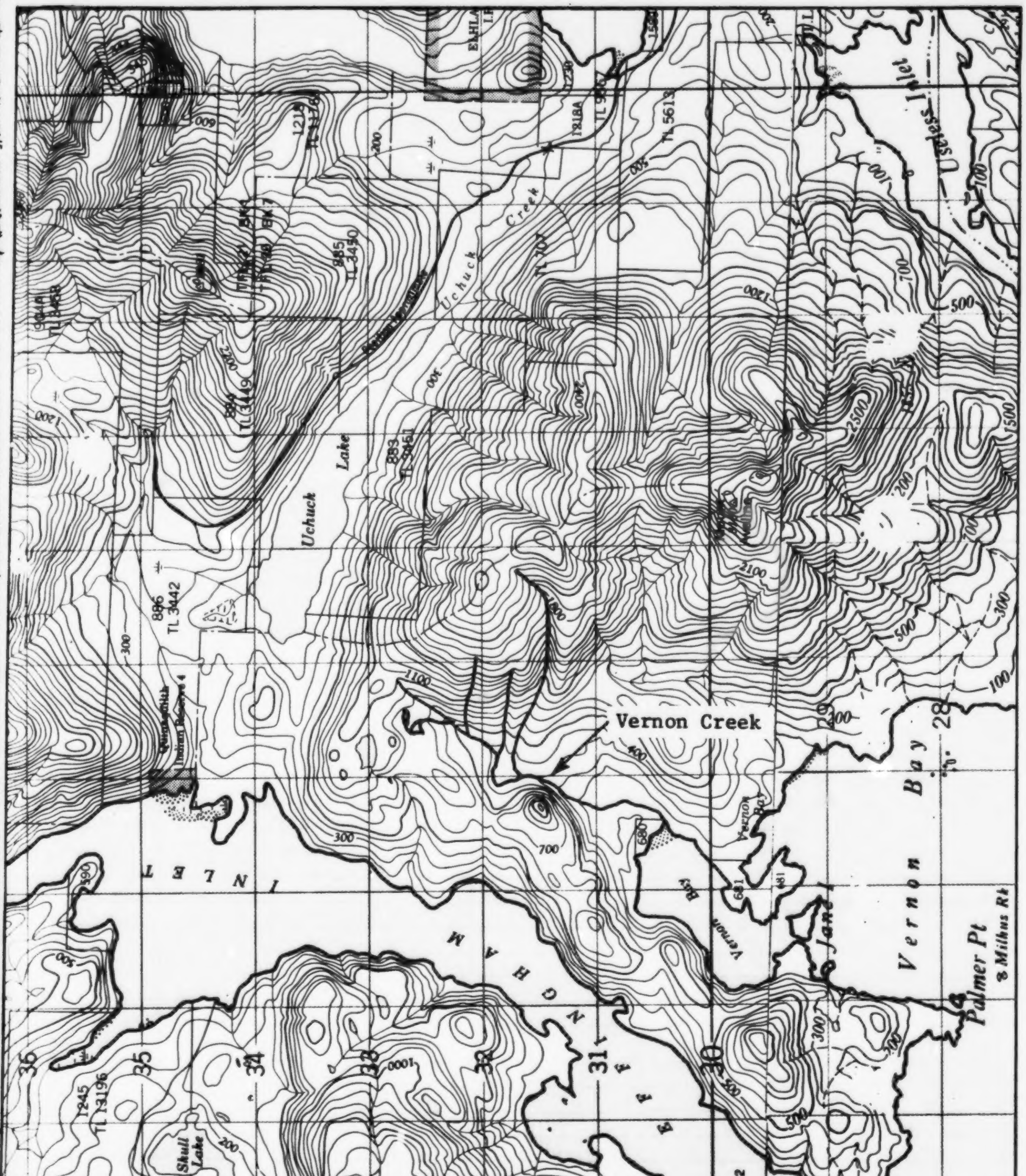
GENERAL REMARKS

ESCAPEMENT RECORD FOR (Useless Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48				750		
49				75		
50				400		
51				400		
52			25	200		
53			25	750		
54			25	750		
55			25	75		
56			25	200		
57			25	400		
58			25	200		
59			N/O	400		
60			N/O	75		
61			25	75		
62			25	25		
63			25	25		
64			N/O	75		
65			25	75		
66			25	75		
67			25	75		
68			75	200		
69			75	750		
70			75	750		
71			25	25		
72			25	400		
73			75	750		
74			75	200		
75			25	75		
76			45	700		
77			50	685		
78			60	300		
79						
80						
81						
82						
83						
84						
85						

TIMING:						
ARRIVE			L. OCT	OCT		
START			L. OCT	OCT		
PEAK			NOV	L. OCT		
END			DEC	NOV		

REMARKS


Vernon Creek
Vernon Creek
N
0
2
kilometres
Uchuck Lake
Uchuck Creek
Vernon Bay
Palmer Pt
Useless Inlet
Effingham Inlet
EFFINGHAM INLET
Skull Lake
Mount Ambatroz
Wallace Island
TL 3458
TL 3449
TL 3442
TL 3450
TL 3451
TL 5613
TL 13196
28
29
30
31
32
33
34
35
36

NAME OF STREAM (Vernon Creek)

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows SW. into Vernon Bay, E. side of Effingham Inlet, Clayoquot Dist.

POSITION 48 125 NE

LENGTH 0.8 km WIDTH 3.7 m DRAINAGE 7.8 km^2

COMPOSITION: BEDROCK 25% BOULDER 10% COARSE 30% FINE 20%

SILT & SAND 10% UNCLASSIFIED 5%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.2 km
0.25 - 0.50	
0.50 - 0.75	0.2 - 0.5 km
0.75 - 1.00	
>1.00	0.5 - 0.8 km

WETTED AREA 2900 m^2 SPAWNING AREA 1400 m^2

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Impassable 1.8 m and 2.4 m falls at 0.8 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to falls at 0.8 km
CHUM	- to falls at 0.8 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

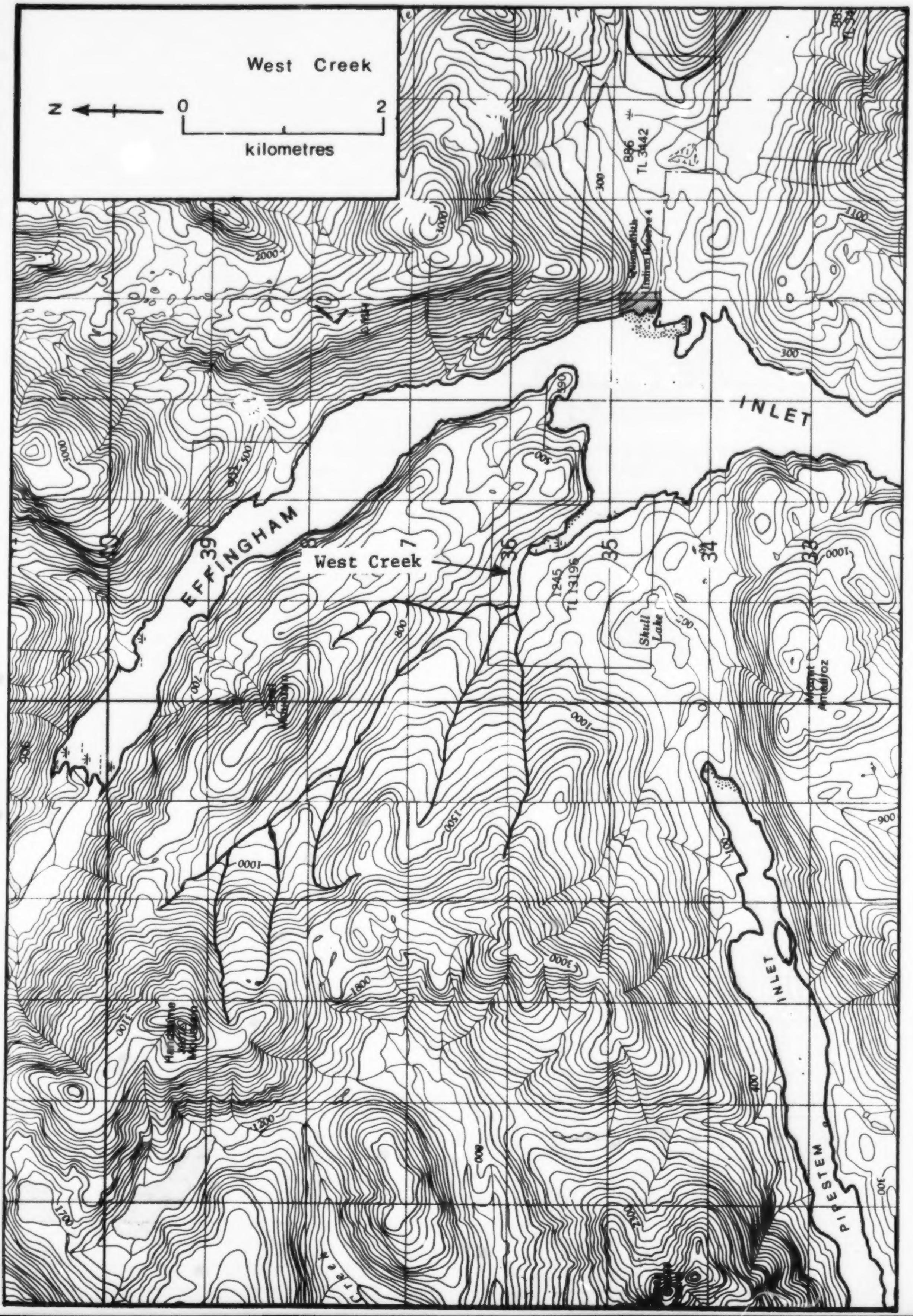
ESCAPEMENT RECORD FOR (Vernon Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48				400		
49				75		
50				400		
51				200		
52				200		
53				200		
54			25	200		
55			25	75		
56			25	25		
57			25	75		
58			25	200		
59			25	75		
60			N/O	75		
61			N/O	200		
62			N/O	25		
63			25	25		
64			N/O	75		
65			N/O	200		
66			N/O	200		
67				75		
68			200	400		
69			75	750		
70			75	200		
71			25	25		
72			25	400		
73			75	750		
74			75	400		
75			75	200		
76			35	450		
77			45	2700		
78			70	400		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			OCT	OCT		
START			NOV	OCT		
PEAK			NOV	L. OCT		
END			DEC	NOV		

REMARKS


West Creek
N
0
2
kilometres
EFFINGHAM
INLET
West Creek
39
40
36
35
34
33
7
886
TL 3442
1245
TL 13196
Skull Lake
INLET
PIPESTEM

NAME OF STREAM (West Creek)

CONSERVATION DISTRICT 4 STATISTICAL AREA 23

LOCATION OF MOUTH Flows SE. into Effingham Inlet, N. of Pipestem Inlet.

Clayoquot Dist. POSITION 49 125 SE

LENGTH 1.6 km WIDTH 9.1 m DRAINAGE 10.2 km^2

COMPOSITION: BEDROCK 5% BOULDER 20% COARSE 40% FINE 20%

SILT & SAND 10% UNCLASSIFIED 5%

PERCENT GRADIENT

0.00 - 0.25	0 - 0.5 km
0.25 - 0.50	
0.50 - 0.75	
0.75 - 1.00	
>1.00	0.5 - 1.6 km

WETTED AREA 14600 m^2 SPAWNING AREA 8700 m^2

DISCHARGE (m^3/s)

TEMPERATURE (°C)

BARRIERS OR POINTS OF DIFFICULT ASCENT

Impassable series of three 4.6 m falls at 1.6 km.

SPAWNING DISTRIBUTION

SPECIES	SECTION OF STREAM USED
SOCKEYE	
CHINOOK	
COHO	- to falls at 1.6 km
CHUM	- to falls at 1.6 km
PINK (ODD YEAR)	
PINK (EVEN YEAR)	
STEELHEAD	

POTENTIAL OF INACCESSIBLE PORTION OF STREAM

GENERAL REMARKS

- 1960. This stream was damaged severely by a logging operator yarding logs down the creek bed with a caterpillar.

ESCAPEMENT RECORD FOR (West Creek)

YEAR	SOCKEYE	CHINOOK	COHO	CHUM	PINK	STEELHEAD
1947						
48				400		
49				400		
50				750		
51				1500		
52			75	400		
53			75	750		
54			75	7500		
55			25	1500		
56			25	7500		
57		25	25	1500		
58		25	25	7500		
59		N/O	25	400		
60			25	1500		
61		N/O	25	3500		
62		N/O	25	750		
63		25	25	400		
64		N/O	25	3500		
65			25	1500		
66			25	1500		
67			75	750		
68			200	7500		
69			75	3500		
70			75	7500		
71		25	25	3500		
72			25	3500		
73			200	3500		
74			200	3500		
75			25	3000		
76			30	3500		
77			50	3200		
78			100	5000		
79						
80						
81						
82						
83						
84						
85						

TIMING:

ARRIVE			L. OCT	OCT		
START			L. OCT	OCT		
PEAK			NOV	L. OCT		
END			NOV	NOV		

REMARKS

METRIC EQUIVALENTS

Length

centimeter (cm) = 0.394 in
meter (m) = 3.280 ft
meter (m) = 1.094 yd
kilometer (km) = 0.621 mi

inch (in) = 2.540 cm
foot (ft) = 0.305 m
yard (yd) = 0.914 m
mile (mi) = 1.609 km

Area

square centimeter (in^2) = 0.155 in^2
square meter (m^2) = 10.760 ft^2
square meter (m^2) = 1.196 yd^2
square kilometer (km^2) = 0.386 mi^2
hectare (ha) = 2.470 a

square inch (in^2) = 6.451 cm^2
square foot (ft^2) = 0.093 m^2
square yard (yd^2) = 0.836 m^2
square mile (mi^2) = 2.590 km^2
acre (a) = 0.405 ha

Volume

cubic centimeter (cm^3) = 0.061 in^3
liter (L) = 61.023 in^3
liter (L) = 0.035 ft^3
liter (L) = 0.264 U.S. gal
= 0.220 Imp. gal
cubic meter (m^3) = 35.315 ft^3
cubic meter (m^3) = 1.308 yd^3

cubic inch (in^3) = 16.387 cm^3
cubic inch (in^3) = 0.016 L
cubic foot (ft^3) = 0.028 m^3
cubic foot (ft^3) = 28.320 L
cubic yard (yd^3) = 0.765 m^3
U.S. gallon (gal) = 3.785 L
Imp. gallon (gal) = 4.546 L

Weight

gram (gm) = 0.035 oz
kilogram (kg) = 2.205 lb
kilogram (kg) = 0.001 ton (short)
tonne (t) = 1.103 ton (short)

ounce (oz) = 31.103 gm
pound (lb) = 0.373 kg
ton (short) = 907.180 kg
ton (short) = 0.907 t

Velocity

meter per second (m/s) = 3.280 ft/s
feet per second (ft/s) = 0.305 m/s

Discharge

cubic meter per second (m^3/s) = 35.315 ft^3/s
cubic foot per second (ft^3/s) = 0.028 m^3/s
cubic meter per second (m^3/s) = 15350.879 U.S. gal/min
= 13198.628 Imp. gal/min

Temperature

Degrees Centigrade ($^{\circ}$C) = 5/9 (Degrees Fahrenheit - 32)
Degrees Fahrenheit ($^{\circ}$F) = 9/5 (Degrees Centigrade) + 32